THE IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY TOWARDS SMALL AND MEDIUM ENTERPRISES PERFORMANCE IN KARIAKOO MARKET ILALA MUNICIPAL

BY

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A Dissertation Submitted in Fulfillment of the Requirement for the Degree of Master of Business Administration in Corporate Management (MBA-CM) of Mzumbe University

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CERTIFICATION

We, the undersigned certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation titled: **The impact of information and communication technology towards small and medium enterprises performance in Kariakoo market Ilala municipal,** in fulfillment of the requirements for award of the degree of Masters of Business Administration-Corporate Management of Mzumbe University.

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DECLARATION

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I, **Nasibu Ezekiel,** declare that this thesis is my own original work and that it has not been presented and will not be presented to any other university for similar or any other degree award.

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ABSTRACT

Current business environments have been significantly affected by Information and Communication Technologies (ICT) and therefore ICT adoption by businesses has been potential for their performance. The main objective of this research is to assess the impact of Information and Communication Technologies towards Performance of Small and Medium Enterprises in Kariakoo market, Ilala municipal. This research used a descriptive survey design and targets the population of registered Small and Medium Enterprises located at Kariakoo market. A total sample of 100 SMEs has been selected using convenience sampling method, the same consist of general merchandise, money transfer, boutique, restaurants and consultation with 20 SMEs each. The study uses both primary and secondary data whereby primary data has been collected using questionnaires; analysis was done by using descriptive statistics and cross tabulation. Mean, standard deviation, frequency tables and cross tabulation has been adopted to find out how data tend to agree or disagree with research questions. Data was presented using frequency tables and cross tabs.

The study shows that before ICT adoption cost of ICT did not impact performance of SMEs at Kariakoo market as evidenced by majority respondents of 77%. On the other hand results revealed that after ICT adoption, cost of ICT impacted performance of SMEs at Kariakoo market as agreed by 81% respondents. Furthermore before ICT adoption, ICT awareness did not impact performance of SMEs as disagreed by 59% of respondents but after ICT adoption SMEs performance has been impacted by ICT awareness as agreed by 63% respondents. Nevertheless ICT usage before its adoption did not impact SMEs performance as disagreed by 74% but ICT usage after adoption impacted SMEs performance as agreed by 80% respondents.

It is recommended that some ICT costs should be rationalized and shared among SMEs while Small Industries and Development Organization should create the platform for SMEs practitioners to share experience, learn and become aware of ICT benefits so that they adopt it. Also **S**MEs should upgrade themselves and adopt more advanced ICT in addition to cellular phones to perform better than currently.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

In both economies developed and developing, it is clearly known that Small and Medium Enterprises (SMEs) are main economic drivers (Mbatula et al.,2013; Zaied 2012; Wambaria et al.,2016; Atambo & Ongori, 2016) and played the vital role in creating wealth, minimizing poverty and generating employment.

SMEs contributes a lot in growth of economies by generating job opportunities as per the Organization for Economic Corporation and Development (OECD) 2004, (Kutlu & Ozturan, 2008; Kraemer & Gibbs, 2004). Justifiably, above 95% of OECD businesses are small and medium sized which provided jobs between 60% -70% of total employment (Ozturan & Kutlu, 2008). SMEs comprise of 98.8% of total enterprises in Malaysia and add 25.9% of products from manufacturing and so created 31.1% of employments to the workforce (Mohd et al., 2014; Noor&Alam, 2009). Although the clear number of SMEs registered in Nigeria is not known it comprise 87% of all business in the country (Akanbi, 2015).

About twenty years ago, Tanzania adopted an ambitious and long term process of socio-economic and political reforms to revamp the businesses so as to alleviate poverty and boost economy. However the rate of national economic growth was not enough to create required job opportunities. Therefore encouraged majority to engage in private sector and practice entrepreneurship in form of micro, small and medium enterprises (MSMEs) (Leonard & Mfaume 2004).

In Tanzania, there are approximately five million residents who are employed in more than three million SMEs. However significant proportion of SMEs are not registered therefore informal.

Despite decrease in percentage of informal economy when weighed to total GDP, in 2010 the informal sector was considered to absorb 62.5% of yearly urban labor force that exceeded estimated percentage of 8.5 by the formal sector. 95% of businesses in Tanzania are small enterprises which supplements 35% of the Gross Domestic Product (Tanzania Chamber of Commerce Industry and Agriculture, 2016). The optimism invents from a mere fact that the President has shown symptoms of supporting the local Tanzanians who are determined to make ends meet (CUTS International, 2016; Baragwira F. 2013).

Mohd et al., (2014) noted that apart from job creation and economic prosperity also SMEs stimulate competition and innovation, support large corporates and oblige as seedbed for growth (Gono & Mpofu, 2015). Road maps for national economies are highly supported by SMEs through enabled information flow, innovative ideas, equity, people and products (UNDP 2007; Mokaya&Njuguna, 2010; Obura, 2011; Jaganathan et al., 2015).

Khosla (2013) suggests that most of SMEs are unable to penetrate into regional and global business setting and so found themselves locked within local markets and exposed to very high rivalry from international firms. However with the introduction of Information and communication Technology (ICT) a true opportunity to compete widely has been posed to SMEs (Wanjau et al., 2012; Manuere et al., 2012). ICT has been the slogan to large corporates for some time now but it has not been the same to SMEs (Nyakuma et al., 2016). Adoption of ICT with SMEs is very primitive having initiatives not progressing beyond fixed phone lines (Kant et al., 2015).

Khosla (2013) suggests that SMEs have been incapable to enter regional and global marketplaces. They have been constrained to local markets, often facing stiff competition from incoming firms. However, with the advent of Information and Communication Technology (ICT) tools, SMEs have been granted a realistic opportunity to compete widely (Wanjau et al., 2012; Manuere et al., 2012).

1.2 Background of the problem

For quite some time now, ICT has been a buzzword for large enterprises, but the same does not hold true for the SMEs (Nyakuma et al., 2016). ICT adoption among SMEs is still very poor, with initiatives in most of these enterprises either not existing at all or never progressing beyond fixed phone lines or fax (Khosla, 2013; Cant et al., 2015).

ICT generally, may be referred as the extensive field of information processing and communication via several computing devices, computer software and telecommunication techniques and equipment (Assefa, 2009). Therefore ICT can be watched as a collective word for a wide range of software, hardware, telecommunications and information management methods, applications and devices, which are used to create, analyze, produce, process, package, distribute, retrieve, receive, store and transform information (Porter &Millar, 1985; Brady et al., 2002).

Ashrafi et al., (2008) emphasized that territories around the world identify the vitality of adoption of ICT to SMEs and so creates special groups to study several features of ICT adoption. Subsequently organizations which are recently using ICT in the globe, not only for cost minimization and increasing efficiency but also for super customer services provision (Appiah et al., 2015). Mokaya, (2012) stated that information is the basic need for organization creation, progressing and survival for SMEs (Wambaria et al., 2016). ICT is able to reduce if not fulfilling the information gaps in SME sector (Wambaria et al., 2016; Makau & Wawire, 2013). Results to SMEs productivity, minimizes expenses, and widens market share in both local market and internationally (Mokaya, 2012; Wambaria et al., 2016). Leading to employment, revenue generation, and broad competition in the country (Wambaria et al., 2016; Wachira, 2014; UNDP, 2007; Mokaya & Njuguna, 2010).

A study conducted by Ashrafi et al., (2008) indicated that 80% of SMEs realized reducing costs, 53% increased revenue whereas 57% strengthens customer relationship due to Information and communication technology.

Knowledge management and information are improved through ICT utilization (Wawire &Makau, 2013) within the organisation and reduces transaction expenses

(Noor& Alam, 2009; Adebayo et al., 2013; Wambaria et al., 2016). Furthermore ICT increases the speed and dependency of transactions for both business to customer and business to business (Alam &Noor, 2009; Banerjee &Malc, 2012; Tarute & Gatautis, 2014; Appiah, 2015; Mpofu & Gono, 2016).

Nevertheless, ICT consist of necessary instruments which are used in facilitating efficiency external communications and provision of quality services for both existing and potential customers (Wanjau et al., 2012; Mohammed et al., 2013; Jaganathan et al., 2014). Taylor (2015) retells that it transformed and will change not only means to work and communicate but also the nature of business activities and organizations (Appiah, 2015; Cant et al., 2015; Mpofu & Gono, 2016).

Through applications of ICTs security has been standardized and information and communications are well monitored and handled within and out of organizations. Mingle and Dzandu (2013) proclaimed that in the first world countries, apart from relaying information, ICTs enhanced better health habits, improved decision making, enabled exchange of information among people, enhanced professional support and efficiency of health institutes (Makau & Wawire, 2013; Dzandu, 2013).

Fink, (1998) ascertained that technology is a vital aspect for the rivalry of SMEs in several factors (Kutlu & Ozturan, 2008). They explained on production methods and products managing techniques, organisation of firms and staff training (Kutlu & Ozturan, 2008; Fink, 1998; Mohammed et al., 2013; Mohd et al., 2014). Gains can be in terms of efficiency, effective management and increased business productivity.

Fuller and Southern (1999) previously acknowledged that ICT can be used as a business tool to minimize expenses, strengthen customer relationship, innovate and facilitate niche marketing (Jaganathan et al., 2014; Ndekwa, 2014; Mbuyisa et al., 2015). It was also noted that perceived benefits of ICT such as market creation, sales improvement and advancement, access simplicity and cost minimization were important factors for SMEs readiness to accept new technologies such as electronic commerce (Kaynak & Tatoglu, 2005; Ghobakhloo et al., 2012; Ladokun et al., 2013; Wachira, 2014).

In 1990s SMEs in East Africa although at a limited scale adopted ICT (Chowdhury and Wolf, 2003). They also noted that ICT development in firms has resulted to replacement of equipment to different forms of capital and labor which has yield considerable returns for businesses which adopted ICT (Ndekwa, 2014; Otengo et al., 2015; Ongori & Atambo, 2016). Akomea-Bonsu and Sampong (2012) tells that ICTs are usually considered as the catalyst for development in both developed and third world countries. Therefore the doubt on whether these technologies have aided SMEs to overcome their weaknesses and contribute to total growth and export improvement became important (Chowdhury & Wolf, 2003; Taylor, 2015). The efficient application of ICT stands out to be a hub for facilitating change and improvement of enterprises (Appiah, 2015).

While ICT is considered to be a significant component towards growth, survival and development of growing enterprises, the use of it by SMEs in Tanzania is still very low (Mokaya, 2012). Equally despite government encouragement to SMEs to adopt, it was noted that SMEs are very slow to take on (Smallbone et al., 2001; Zaied, 2012). SMEs are kept very far from enjoying economic benefits of ICT, the fact caused by several reasons which prevent adoption and integration of the same (Wambaria et al., 2016; Nassiuma et al., 2018).Setbacks consist of poor knowledge on ICT, difficult to afford resource acquisition as well as poor infrastructures.

1.3 Statement of the problem

Enterprise operations which adopted ICT showed positive results of performance of businesses (Taylor, 2015; Appiah, 2015; Dixon et al., 2002; Wanjau et al., 2012). The main advantage is the improved operational results in grabbing opportunities, creating value, market creation and access as well as competition. Studies suggest that Integrating and adopting ICT is speed with large enterprises than SMEs due to their strong financial muscles which allows them to finance and sustain ICT projects. Large firms adopt and integrate ICT as their way of leveraging survival, rivalry and expansion in a changing market environment (Nassiuma et al., 2018; Wambaria et al., 2016).

Using ICT gives many advantages between a wide-range involving inter and intra-firm business activities and transactions. They add value to improving knowledge management and information in the organizations, reduce transacting costs, fasten transactions activities and reliability for both business and its clients as well as business to business (Tarute &Gatautis 2014; Mpofu & Gono 2016).

The existing circumstance demonstrates low levels of ICT adoption by SMEs due to several reasons cutting across business orientation, organizations capabilities and business environments. This result to the key question: Why SMEs has low level of ICT adoption as a means of its efficiency performance when compared to large scale firms? Therefore it is against this framework a researcher found out whether there is a link between ICT adoption and enterprise performance between SMEs at Kariakoo market in Ilala municipal, Dar es salaam Tanzania.

1.4 Research objectives

This section consists of general research objective and specific objectives.

1.4.1 General research objective

The general objective of this research has been to assess the impact of Information and Communication Technology towards performance of Small and Medium Enterprises at Kariakoo Market in Ilala Dar es salaam.

1.4.2 Specific research objectives

The specific objectives of this research study has been narrated below,

1. To find out whether the cost of information and communication technologies impact performance of small and medium enterprises at Kariakoo market.
2. To assess whether there is awareness of information and communication technologies by small and medium enterprises to impact their performance at Kariakoo market.
3. To identify whether the use of information and communication technologies impact small and medium enterprises performance at Kariakoo market.

1.5 Research questions

These comprise of the main research question and the specific questions which has been answered by the study based on the objectives stated above.

1.5.1 Main research question

The main research question answered by this study was, what are the impact of information and communication technologies towards performance of small and medium enterprises in Kariakoo market?

1.5.2 Specific research questions

1. To what extent does the cost of information and communication technologies impact performance of small and medium enterprises at Kariakoo market?
2. Are small and medium enterprises at Kariakoo aware of information and communication technologies to improve their performance?
3. How does the use of information and communication technologies in Kariakoo impact performance of small and medium enterprises?

1.6 Significance of the study

The research findings has been beneficial to many stakeholders. It helps other researchers and scholars who uses this as their source of review when conducting their related studies. The same eases their processes and procedure to find data and outcomes

regarding impact of ICT towards SMEs at Kariakoo market. By reviewing the findings of this study their expenses are served too.

Also SME entrepreneurs and leaders uses the findings of this research to make informed decisions on adopting information and communication technologies to improve the efficient performance of their enterprises. They become informed on the effects of costs of ICT equipment's and instrument as well as cost of adopting and running ICT in SMEs. Therefore informed decisions reduced time, trials and other associated costs.

On the other hand businesses has been provided by indicators to show them relevant types of ICT to adopt, means of adopting and the expected performance of SMEs. Through both quantitative and qualitative information about ICT and SMEs which are provided by the findings of this study, expansion of small and medium enterprises as well as information communication technology sector has been enhanced and helps to solve different challenges relating to ICT developments.

Institutions responsible for policy formulation and developing strategic process for decision making are other stakeholders that directly uses the findings of this study to align ICT to SMEs performance.

1.7 Limitations of the study

This study assesses the impact of information and communication technologies towards performance of SMEs. Therefore ICTs are not static they change very fast and makes one component among many which impact the performance of the business. Also SMEs are ambiguously defined with the meaning being copied form developed countries and locally including micro businesses. On the other hand firm's performance is contributed by many factors and specific sectors may be highly impacted by information and communication technologies.

The requirement to do a reconnaissance study and choose a sample is faced by time constraints, financial limitations, identification and classification of SMEs by sector and lastly exclusive quantification of impact of the applied ICTs to SMEs growth.

There are many SMEs in Dar es salaam city however this study concentrated only at selected representative sample of SMEs which are found at Kariakoo market Ilala municipality and have adopted information and communication technologies in their business.

Furthermore the researcher collected and analyzed data relating to ICT in SMEs therefore being be able to provide the opinions and contribution made by large corporates however some of them graduated from SME level and may have positive contribution to the study.

Sometimes business people are very reluctant to provide financial information and some other confidential data but to address this challenge the researcher used the known personnel who is the banks relationship manager to the businesses at Kariakoo market.

1.8 Delimitation of the study

This study concentrated on the impact of ICT on small and medium enterprises that adopted information and communication technologies or are exposed to ICTs at Kariakoo market. It contained the whole geographical area found within the streets of Lumumba, Lindi, Msimbazi and Muhoro streets.

1.9 Organization of the study

This paper consists of five chapters whereby chapter one covered introduction and background of the research problem, research objectives and research questions, chapter two consist of literature review both theoretical and empirical, methodologies that has smoothed achievement has been covered at chapter three, the presentation and discussion of findings were discussed at chapter four then finally chapter five that contained study summary, conclusion and recommendation. The appendices and references are appended at the last sheets.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives meanings of different terms and importance of SMEs, measuring performance relating to ICTs and SMEs. Also gives a brief historical trend regarding ICTs and commerce to its current status with the study's current theories in technologies, community, enterprise performance and growth of SMEs. The review further shows relevant factors which impact the SME's performance as it relates to information communication technologies which consist of,; types and application of ICTs, awareness levels of ICTs, access to ICTs and costs relating to ICTs.

On the other hand the chapter shows the literatures reviewed which are relevant to the study of impact of information communication technologies towards performance of small and medium enterprises so as to get deep insights from other scholars which has been already documented. The literatures are contained in three main sections which are theoretical literature review, empirical literature review and conceptual framework.

2.2 Theoretical Literature

2.2.1 Definitions of Key Concepts and Terms

Small and Medium Enterprises (SMEs)

This has no single accepted definition, the same varies from one nation to another and from one economic sector to another. The most common parameters which are normally stated in many kinds of SMEs definition are number of employees and companies net worth (Chumba, 2016). Also it became very difficult to demarcate the micro businesses and SMEs as a result in Tanzania SMEs consists of micro enterprises, sometimes abbreviated as MSMEs (Fasili, 2017).

In Tanzania the SME development policy 2003 (p.3) defines SMEs though including micro business with regards to employees and capital investment as follows;

Table 2. 1: Categories of businesses in SME definition.

Category	Number of employees	Capital investment in Machinery (TZS Millions)
Micro- enterprise	1 to 4	Up to 5
Small enterprise	5 to 49	5 to 200
Medium enterprise	50 to 99	200 to 800
Large enterprise	100 +	Above 800

Source; Tanzania SME development policy (2003)

The studies indicate that 55% of GDP was generated from SMEs and about 65% of total employment in developed economies. In third world countries 60% of GDP and 70% of employment comes from SMEs but the middle income nations, SMEs contributes over 70% of GDP and 95% of their total jobs (OECD, 2004).

Kenya has their definition of SMEs which refers to the businesses that has employees at the range from 10 to 50. SMEs play an important role in both developing and developed economies. They provide job opportunities, stimulate innovation through competition and create export chances (Thuvile & Wennekers, 2004).

In 2017 the SME sector in Kenya created 98% of total employment, this rose GDP by 3%. Also SMEs consist of 98 % of total enterprises which result to 30 % of sum of manufacturing output, National economic survey report, Central Bank of Kenya (2017).

South Africa has its own definition of SMEs where by, the broadly accepted definition of SME refers to any enterprise which have some or all of the following characteristics, have fewer than 200 workers, with turnover per year which doesn't exceed 64 million rands, have capital assets not exceeding Rand 10 Million and owners are involved in direct management of the enterprise. National small business amendment act (2003).

According to EU recommendations 2003/361, SME is any enterprise which has staff head count of less than 250, annual turnover of less or equal to Euro 50 Million or the balance sheet size of less than or equal to Euros 43 Million. The table below indicates the definition;

Table 2. 2: Categories of businesses in SME definition.

Enterprise category	Staff head counts	Turnover	Balance sheet total
Medium sized	< 250	≤ € 50 Million	≤ € 43 Million
Small	< 50	≤ € 10 Million	≤ € 10 Million
Micro	< 10	≤ € 2 Million	≤ € 2 Million

Source; EU recommendation 2003/361.

In USA, SMEs are defined as enterprises which have the number of employees not exceeding 500 employees however the annual revenue varies according to the sector in which the enterprise operates, service sectors excluding computer services should have the annual turnover of less than USD 7 Million and the one with computer services should have USD 25 Mill and the enterprises dealing with farming should have the annual turnover less than USD 250,000. Therefore the number of employees are all the same except for annual revenue (OECD 2005).

As earlier stated, there are many definitions of SMEs which varies depending on the countries of operations and in some countries depending on the sectors of operation of the enterprise however for the purpose of this study we used the SME definition as stated by Tanzania SME policy 2003 and not any other definition.

SME Performance

Refers to the level of achievement of the strategic goal and objectives of an organization. The enterprise may set its goals and targets which are linked to the SMEs vision and mission to be met within a given time line, it can be short term or long term (Oliver & Palmer 1998). Each firm may have its own agreed performance indicators however most of the businesses indicators of performance includes, profit, business

expansion, increase in customer base and their satisfaction, increase in competition ability and many others. The most common way of measuring SME performance is by the use of Standard score card which comprises of both financial measures and non-financial measures (Kaplan and Norton, 1992)

In this research the adopted SME performance indicators are, general revenue of the business, profitability, rise of number of customers, competitive ability and capital base expansion.

General revenue of the business

Refers to the total amount of money obtained after selling the products or delivering services, normally obtained after multiplying the number of products sold with their unit price Kothari (2004).

Profitability

Here the researcher means the financial measure which is obtained after deduction of all expenses from the revenue generated by the firm, it may either increase the capital of the business or may be distributed to the owners (Chumba, 2016).

Market share

Refers to the portion of market of percentage of customers in the market which the SME serves and satisfies, normally measured in terms of fraction of number of customers served by the SME over total number of customers served by all firms of your nature Johnson et al, (2008).

Competition ability

Porter (1979) defined competition as the situation of striving to achieve more in terms of profitability, market share and other gains being financial or moral by using the distinctive advantage that a firm have over other firms. ICT enabled the SME to compete more and gain more in terms of profits and other aspects (Whittington. et al, 2008).

Performance Measurement

Neely (1998) defined performance measurement as "the process of quantifying the effectiveness and efficiency of the past actions via acquisition, ordering, sorting, analysis, interpretation and dissemination of appropriate data". Moullin (2003) said Performance measurement means evaluating how well organizations are managed and the value they deliver for customers and other stakeholders. This indicates the objective of performance measurement and gives emphasis on assessing both the way organizations are managed and the total value delivered to stakeholders from the organisation.

Nanni (1990) defined it as a means applied to monitor and control organization in the process of insuring that the organization follows strategies which paves the way to achievement of both specific and overall objectives.

Through performance measurement resources are properly allocated (Godener & Soderquist, 2004). It is more applicable to the businesses with limited resources.
Results from performance measurement helps in strategy formulation, implementation and evaluation by showing the relationship between goals, strategy, lag and lead indicators (Kaplan & Norton 1992, 1996) which then gives a way to communicate during operations and set priorities (Nanni et ap., 1992).

SMEs performance models.

Assessment of SMEs performance can be viewed into multiple perspectives, below are some of the focal models on SMEs performance;

First perspective contains firm's growth models which show soft performance measures. These models tend to explain the mechanisms of which firms grow from their scratch point to fully functioning entities. Usually these models are qualitative (Chumba B, 2016).
Second perspective of business performance models weighs more on performance prediction and are quantitative in nature with two sub groups categories namely, firm's dynamic theories and financial failure prediction models (Globerman S, 2001).

These performance models has challenges some of them being, dynamism of immature firms where by special care should be exercised to the immature businesses than stable firms when measuring performance. Also measurement approaches which uses profit as a direct measure of firm's performance should include the leading indicator to measure future success on its exercise since profit is a lagging indicator and does not change immediately (Lingaraja, K 2016).

Managers of SMEs are encouraged to apply feasible models of performance, the hypothetical model should consider the nature and kind of modern economy and ICTs which enables SMEs to adopt the structure which is open (Globerman S., 2001) Fitzgerald, Johnston et al. (1991) suggested the performance measurement structure which can be adapted by SMEs, it consists of six dimensions which are grouped as performance results (competitiveness and financial performance) and determinants (quality of service, flexibility, innovation and resource utilization).

Fitzgerald, Johnston et al. explained that, in case performance determinants are realized, its side effect will be performance improvement in SME and the same can keep improving by reviewing the determinants by close monitory and evaluation.
This advanced performance bring about progressive performance of SMEs can be evaluated from numerous perspectives, the following is a summary of assessments of the focal business performance improvement theories:

Performance improvement theory by Coase (1937) stated that, the nature of the firm debates on the grounds of firm's existence and growths and discussed by the transaction cost theory, which mentioned the market participation cost and the way it adds to the business performance thereafter scaled growth. According to researchers' several ideas of SMEs performance, for which reasons for attribution to the expansion scale are given based on growth mechanism.

Most of these scales look the firm performance from the economic outlook as Coase, who viewed that if the business arranged an additional transaction the scale of the firm will grow while the opposite is if transacted by another firm, hence the additional

transaction cost in the organization equals the cost to finish this transaction in the market or the cost of the added transaction done by another firm.

Another type of business performance theory have its basis on the enterprise lifecycle and biological theories and so consider the dynamic features in measuring the enterprise growth following life stages. This theory evaluated growth of the business in such a way that it will undergo birth, grow to maturity then die same ways as an organism. This theory is called gene combination theory and resembles the economic life cycle concept of the firm in economics.

Lastly relative theory is one among the theories which explained the business performance improvement, this originated from the concept of resource management and stimulated via assessment and analysis of the quantity, extension, structure and foremost topic of management resource. By applying this theory business growth can be viewed from three major corners which are scale, diversification and competitive force. Enterprise growth force refers to the ability of the business to appreciate the extension of quantity and enrich the quality in the coming period Li Zhicheng and Diao Zhaofeng (2003, P.86-89) (Tang, 2005, P.17-21) explained that firm's expansion was an interactive process comprising scale extension, knowledge accumulation and system construction (Chumba., 2016).

Penrose's theory of the growth of the firm states, firms growth is in static progress of management, working together with resources which inspires continuous progression although may hinder the rate of growth. For the business to grow there should be a bunch of resources some of them ICTs which should be interlinked with the manager's ideas, experience and knowledge.

According to these theories of firm performance development, the following reasons are taken as critical measurable aspects of business performance viewed as market share and profit by Coase, management resource stated in the firm's capital structure and employees or systems based on lifecycle and biological theories.

Information and Communication Technologies (ICTs),

This can be referred as a bunch of technological resources that facilitates communication, creation, spread, storing and managing information. Some of these equipment are computers, internet, telephone and broadcasting technologies. Mark S. Lewis said that "Much IT mirrors and amplifies the brains key information-handing activities: processing, storage and transmission", (Harvard Business Review, 2015). In SMEs are not the same as in other sectors where by technologies has been practiced until reached its time of diminishing returns. Great improvements in ICTs storage ability and processing continued at a high speed and persistently with many multiplied effect.

Since first invention in information by Sumerians in Mesopotamia during 3000 BC to 2000 BC (Chavart, 2002) until the third generation when Harold J. Leavitt and Thomas L. Whisler authors of the Harvard business review (1958) agreed to give the name of information technology, computers were not useful in business except for telegrams, phones and typewriters however the same didn't impact SMEs that much.

During the fourth generation of ICTs (from 1979 to present) large companies adopted ICTs which now have significant budget compared to other operational budgets. 90% of all information are stored, retrieved, processed, disseminated and communicated through computers and internet which are now user friend (World Economic Forum, 2014).

Information is now a vital component to measure the performance of SMEs which currently faces a lot of uncertainties regarding rivalry, market, employee's attitude and regulations. This has placed the significance of SMEs to adopt information and communication technologies.

The below stated aspects of ICTs seems to affect the performance of SMEs and therefore there is the need for further analysis of them. These aspects includes but not limited to, use of ICTs especially, system, processes and technologies in SMEs, Degree of ICT awareness specifically on knowledge management and innovations as well as ICT expenses stressing on its availability and affordability in SMEs.

Use of information communication technologies.

There are different types of ICTs which usually have either the same or different uses to accomplish the particular purpose in SMEs. For example, network with wires and wireless to serve the same purpose or M-pesa and electronic fund transfers to send and receive money from different customers.

For the purpose of getting better information concerning use of ICT, here down state are the summary of categories of ICT, applications of ICT in SMEs, consistency and regularity of usage of ICTs in SMEs as well as degree of integration of ICTs as it relates to the performance of SMEs.

In Tanzania huge part of ICT implemented were obtained via live projects, and after the expiry of the project period they remained operative as part of the general operations although it is not always the case. As per institutional theory ICT projects go in the same way as social values, business processes adjustments and remodeling therefore influencing the performance of SME temporarily or permanently.

Normally the type and category of ICTs to be used in SMEs depends on the nature of the product to be produced or the service to be delivered. ICTs comprises of three main components namely, ICT hardware, software and communication technologies. Hardware consists of computers, cameras, scanners, printers and the likes while on the other hand software are, standard office applications like word processors and applications, e.g. statistics software, accounting packages. Communication technologies include but not limited to emails, skypes, tele conferencing, video conferencing and internet to mention (Eurostat, 2014).

ICT goods and services are classified according to economic sector or according to the product based on international classification standards.

According to economic activities ICTs are classified as, publishing activities (i.e. periodicals, books as well as software publishing), motion picture, television and video programs, sound crafting and recording and music publishing)user interface designing

and broadcasting events, telecommunications which includes wireless and wired telecoms actions, and other telecom activities e.g. satellite tracking. Computer consultancy, programming as well as computer facilities management, other information technology like software installation, disaster recovery and other services like, processing and hosting data, web portals, information search as well as news agency (UNCTAD, 2007).

According to ICT product classification sometimes called central product classification involves products like telephones, internet services, on-line activities, agency news activities, library and archive services, programming and distribution services info-tech consulting and support activities as well as IT network management and infrastructure services.

The form of ICT mostly adopted by enterprises are in form of systems with input, process and output mechanism, these systems can be categorized based on the function which is performing and may include though not limited to, payroll systems, accounting systems, revenue collection, stock control and tracking systems, banking and customer relationship management systems to mention few.

OECD revised model considers the uses of ICT in business in two perspectives, the use of ICT to obtain general information of the business which are, computer usage, technologies and internet like LAN, WAN, intra and extranets, internet connection ways like, security panes, virus and worms attacks etc. the use of ICT in business operations comprising; websites for customer relations, payment services and purchase of products, privacy and security, benefits and barriers with internet selling, use of internet to interact with government institutions, also use of internet in enterprise departments like, human resources functions, accounting activities, e-commerce links and back-end systems as well as buy and supply system (OECD, 2015)

Based on above stated views it can be termed true and acceptable that ICT is vital and useful in businesses including SMEs and the community at large as it is used by one business venture to another. Therefore ICT application in SMEs is reviewed with its contribution in SME performance.

Research study by Schubert (2007) shows among aspects of business which are highly supported by ICT are, customer services and marketing while other aspects like, materials and merchandise management, product development and performance are not supported well with ICT.

Consistency application of ICTs in SMEs should be measured as it indicates the way ICT are vital to business operations. If application and use of ICT are occasional and periodical then its contribution on performance will be low compared to the investments done.

SMEs may have little operations which need regular and continuous use of ICT because they didn't invest huge in ICT systems or has no qualified experts however as the time goes and SME expands they find it important to cope with the global market and use ICT continuous and regularly so as to stay alive and compete with SMEs and entrants. Therefore SMEs in urban areas are placed on the same platform with local SMEs and so performance factors are weighed the same, by this way financial performance and competitive ness in SMEs are highly determined based on the global context and local context Bartelsman, (2000).

For SMEs to succeed in using ICT effectively and efficiently, they should improve in two main factors which are, setting strategies to minimize ICT costs and adopting SME policies which incorporate ICT application and usage. Through implementing these two strategies SMEs has positioned themselves in a situation to continuously and consistently using ICTs and thereby increase SME performance in terms of productivity and service delivery as well as relationship management between suppliers, buyers and other stakeholders.

Degree of integration of ICTs in SMEs activities.

Large percent ICTs adopted by SMEs are not compatible with the business activities or model of operations, this is highly contributed by failure to change the business processes so as to align them with adopted information and communication technologies. A point to note is that ICT is usually important although not sufficient enabler of gains on production however ICT is believed to have high likelihood to improve essential business of SMEs in each step of the business (McKinsey Global Institute, 2001).

Dominance of Use of ICTs in SMEs

Business including SMEs are operational in the context with both internal and external factors which affect the business as a whole, the same way uses and application of ICTs varies from one sector of the economy to another due to its operating environments, example banking, financial services and stock markets are significantly using ICT due to its nature of transactions, operations, customers as well as their general working environments the situation which differs significantly with the raw material production businesses. Therefore it is vital for the SMEs to invest in ICT projects depending on their nature of operations and the industry in which they operate so that the investment positively affects the performance of the business. The SMEs which have access of online marketing and ecommerce forums has greater chance to increase their customer base than SMEs with no such access.

Basic communication.

In this study basic communication has been considered as the communication used in SMEs that uses mobile phones, fax machines, emails and sometimes fixed lines so as to provide services or deliver products to its customers or link them to the suppliers and other key stakeholders Bobby, (2016).

Basic information technology.

Whenever this term is used it means the form of communication and technology which deploys personal computer or laptop connected with proper software, internet, tablet,

smartphone and a static webpage. SMEs which use these are classified at level two ICT usages (Chumba, 2016).

Intermediate ICTs.

Refers to an upgraded form of communication technology which uses LAN, WAN, dynamic websites, broadband, video conferencing, online platforms, social media and sometimes business applications (Chumba, 2016). Large number of developed SMEs applies this level of ICT.

Advanced ICTs.

There may be several meanings of the term advanced information and communication technology but Lekhraj (2015) defined it as system of high innovation which includes sophisticated integrated business systems that allows complex transactions to take place and are capable of storing and retrieving the same. It may include all other components of basic to intermediate ICT however of high speed, inventions, complexity and other sophistications. Most of large companies apply this category of ICT, many studies shows that negligible number of SMES is at this ICT level in Africa.

ICT awareness.

In SMEs, ICT awareness explains about the degree of cognizance of ICT by owners and managers of the enterprises, i.e. how well SME people know that ICT can help them realize their best performance in production of service delivery. Therefore tells about the degree of knowledge of ICT existence, application and significance to the business (Massenge, 2014).

SMEs awareness levels in ICTs.

Literacy in information and communication technologies for SMEs has been considered to be more essential for the business in the twenty first century, it emerged during 1970s and grew to be recognized as critical knowledge for business performance currently Bruce, (2002). In developed economies knowledge on information has become very important factor and thus called information is power and determines standard of living. Nowadays technologically progressed economies are truly

knowledge based (World development report, 1999)**.** ICTs are of increasing vitality in peoples' everyday lives and business activities and that presence will certainly rise in the future. Abilities for choosing relevant and disposing irrelevant information, identifying patterns in information, inferring and decoding information as well as adapting new and discarding old skills are in increasing demand. (OECD, 1996: 13).

ICT literacy.

Is described as the level of ICT expertise of employees, managers and owners of SMEs as it can be used to enhance the SME performance so as to meet its visions. Explains about the highly knowledgeable people on the ICT field and the way they apply it to increase firms productivity and performance (Matambalya & Sussana, 2001).

ICT's Literacy in SMEs

Naturally, the availability and embedded value of information has changed significantly and so affected the learning and working means of enterprises. To win organizations does not require only to recruit ICT professionals but also must apply and use the knowledge of ICTs to the society and create a market segment of the business. Information about ICT literacy is still insufficient and discussion on how best to address the issue from individual staff to organizational level is still on.

By nature, value, and availability of information have changed enormously, and this change impact the way organizations, learn and work. To succeed, it is not enough to employ professionals skilled with ICT skills: The organization must know how to apply the knowledge of various ICTs, in this information society and create a niche for their line of business. There is a lack of information about the ICT literacy of organization and debate about how best to address this issue from an organizational level as well as the staff individual level.

Research and programs are still continuing in the world about information literacy however obtaining information in developing nations is expensive, some facts suggests that SMEs show willingness to reimburse substantial sums for relevant information where available (KIPPRA, 2006).

Findings from studies conducted from Spanish firms indicates that support of ICTs by the company boosts knowledge creation, which then increases learning in organisation and positively impact socialization, combination, external and internalization. Likewise these studies found that information technology is crucial component of creating understanding (Davenport & Prusac, 1998), since it enhances rapid collection, store and exchange of knowledge on a way impractical in the past (Roberts., 2000).

Through better access to information and organizational learning empowered by ICT's proficient decision making activities and structures are embraced in the organization yielding to enhanced resource utilization. Alsopersonal staff innovations and organizational inventions are highly boosted by ICT usage and application.

ICTs cost in SMEs

According to Maslow's there exist a linear relationship amid device complexity and time. Therefore via rapid spread ICT and continuous reducing prices of communication, markets in parts of the world become more integrated and sophisticated (Matambalya & Wolf, 2001). This shows that ICTs expenses decreased progressively as far as more innovations and improvements takes place and thereby become more affordable to SMEs. These costs to SMEs can be fixed, direct, indirect, marketing and period costs and varied according to nature of the business conducted by organizations, costs and investments. Significant expenses are associated with resource and skilled man power (Jovanovic, 2000).

ICT costs can be classified into, hardware and software costs, accessories and infrastructure expenses, ICT expertise and training expenses. These costs are not same to all businesses they vary from basic communication, basic information technology, and intermediate and advanced information technology. Therefore depends mostly on the level of ICT adoption and size of enterprise. O' Callaghan argued that, businesses with high technology application in its operations resulted to changes in organization structures and reduced redundancies while on the other hand organizational performance increased substantially.

Cost of software and hardware in SMES

In SMEs which adopted basic communication, their hardware costs involves purchases of phone set, cabling set up and fixed lines acquisition while the software expenses includes, phony bills and phony bills. As a result of automation, the SMEs give up the cost of managing records.

In case of SMEs which uses second level of ICT previously stated as basic information technology their hardware costs has been purchase of computers, printers, computer accessories and computer maintenance costs and the software costs comprises antivirus purchase and installation, backup systems for record keeping, data retrieval and updating system, low band for internet connectivity as well as open source license purchase.

SMEs having intermediate information technologies have hardware costs as per basic information technologies with added costs of tablets, antennas, servers etc. however software costs involves, dynamic website with high bandwidth usage, internet connections and additional tools for computing, recording, storage, live streaming and so on.

Enterprises with advanced technologies, internet usage is necessary for their operations and connected office applications. Serious and up to date software packages are needed and should be maintained all the time. Therefore in this category software costs are high compared to hardware expenses because ICT professionals are hired, internet and license costs are permanent and recorded as business expenses regularly.

From the above explained facts it is not hesitated to say that the more sophisticated ICTs are used by SMEs the more costs of it are incurred although the returns on investments in ICT are proportional to the costs incurred (Bonn, 2001).

Cost of ICT infrastructure in SMES.

Other costs of infrastructures like furniture for ICT tools support, ICT tools and instruments, fixtures and the like are normally fixed in nature they are incurred once by SMEs at the time they adopt ICTs, these fixed costs do vary according to the size of the enterprise, frequency and intensity of use. They comprise of ergonomic furniture like, ICT special tables, office workstations and others to simplify its use by staff and experts.

Major components of infrastructure expenses consist of ICT set up costs that depend on the business location and layout as well as availability of ICT accessories like, telephone, data, and network at the place

ICT service cost is periodic and is generally incurred for the situation of managed ICT services. This includes the transfer of management concern for solutions from the customer to the service provider, often at arranged service level objectives and scheduled fixed fees

ICT costs of training and technical expertise incurred by SMEs.

These costs mostly rely on the size of SME and the nature of use of ICTs in firms. Many SMEs do not prefer to train staff on ICT to avoid training costs however they like to hire already trained staff.

The cost of training in ICTs and technical expertise is mostly dependent on the size of SME and nature of use of ICTs in SMES. Most SMEs are not likely to incur ICT training cost for staff since they are more likely to hire trained staff. However, this doesn't eliminate the need for SMES to keep up-to-date with new developments in the use of ICTs in the sector. Towards this, it's necessary that SMES dedicate resources such as time, acquirement of training resources i.e. e-learning platforms for online training, external ICT expertise who occasionally may train the staff. Also undertaking research on new developments on how best to equip personnel in the use of ICT will also benefit SMES by creating awareness on how best to utilize ICTs to the benefit of the organization (Petra Schubert, 2007).

SMEs and other firms which are applying ICTs at the levels of basic communications and information technologies seems to benefit more through training of individuals but the SMEs with intermediate and advanced ICTs needs to conduct on job training or external training for people in the organization so as to obtain updated and relevant skills on ICTs aiming at improving staff and organizational performance.

The research questions asked mainly on the impact of the aspects of use of ICTs, cost of ICTs and awareness level of ICTs and their results to towards boosting SMEs performance through enhancing operations which then leads to SME growth and expansion.

2.2.2 Theories Relevant to the Study.

There are many theories which tend to explain the impact of ICTs towards SMEs, among others the study narrated on the following theories, Technology, organization and environmental theory, institutional theory, diffusion of innovation theory.

This research question/objective concerning usage of ICTs to impact SMEs has explained well with the theory explained below;

Technology Organization and Environmental theory (TOE).

The applied theory was developed by Tornatzky and Fleisher (1990) and explains that the way organizations adopts and puts into action innovations in ICT is highly impacted by three aspects namely, technological aspect, organizational aspect and environmental aspect (Hwang &Wu, 2016; Angeles, 2013 Adewoye et al., 2011).

Technological aspect comprises of both interior and exterior technologies which are relevant to the organization, together with both equipment and processes (Angeles, 2013). Interior context covers all technology which are in use by the enterprise currently, the same was adapted earlier while on the other hand exterior technology refers to the outside technology which is available in the market but the firm has not yet adopted it, so it does not use such technology in its operations currently. Collins et al (1988) argued that interior technology is vital for the firm to adopt the exterior one which distinguishes the level of innovation between firms since some will result to

significant changes and some into small changes. Therefore firms should be careful to select.

The organizational aspect enlightens about characteristics as well as resources of the organisation, including the size of the organisation, centralization level, formalization level, managerial structure, human workforce, amount of loose resources and employee's relationship (Adewoye et al., 2011; Angeles, 2013; Hwang & Wu, 2016). In this sense the organizational structure should be adopted to facilitate the innovation adoption process, in such a way that top management adopts and approves for managers and middle workers to implement the adoption to the organisation through mechanic structure and not organic and lastly employees should apply the adopted innovation and continues to learn through product champions, change agents and other teams made to facilitate changes through the use of new adopted innovation.

Lastly the environmental aspect explains about the industry size and structure, organization's competitors, macroeconomic setting and the existing business regulations (Banerjee & Malc, 2012; Angeles, 2013), the presence of technology service providers is also the content of this aspect. The theory tells that innovations are fast in the industry with intense competition than in the one with low rivalry same ways rapid growing SMEs tend to innovate more quickly than slow ones (Mansfield et al, 1977) however other firms innovate more by expanding themselves and increasing their market share when the industry is declining, when other firms are closing or winding up.

Nevertheless, government regulations about technology can be a catalyst of a hindrance wall towards innovation adoption among SMEs, e.g. pollution controls imposed by government may increase innovation in such a way that SMEs innovate recycling processes to produce more useful products as well as innovating more hygiene drainage system however safety and testing regulations can retard level of technology adoption and innovation, for instance, in agriculture if the seeds require intensive test before being accepted this may demoralize SMEs to undertake innovation on seeds.

Limitations of the TOE theory.

Most of the studies which tested this theory concluded that the theory is mostly applicable in innovation adoption and the three contexts are important parameters of the theory to obtain proper conclusion. However the researchers assumed that each context of technology studied have unique set of factors, constructs or measures but in reality measures and set of factors are not unique, different people can measure technology, organisation and environmental contexts by using other different factors rather than those stated in the theory, e.g. technology readiness as it affects technological aspect (Zhu et al, 2004).

Also different kinds of innovations have different factors which affect their adoption as well distinct national or cultural contexts with different industries have no similar factors of measurement and so different measures can be used for the same technological, organizational and environmental contexts.

Institutional theory

The firm's decisions are not purely depending on rational efficiency objectives but also by factors embedding the cultural values of the society (Lin & Liu, 2015; Gichira et al., 2012).

The theory reveals that businesses become the same as a result of legitimacy pressure as well as isomorphic pressure (Gibbs & Kraemer, 2004; Warui et al., 2015). Therefore businesses tend to become of similar operations over time as competition and customer pressure encourages them to imitate industry leaders (Lin & Liu, 2015; Gibbs & Kraemer, 2004; Gichira et al., 2012).

This theory justifies the need for research question concerning the awareness of ICTs towards SMEs performance. The same question can also be well explained by the theory known as technology acceptance model (TAM). The institutional theory by Scott and Christensen (1995) shows the need to evaluate whether SMEs leaders are aware of ICTs to accelerate its performance.

The main essence of this theory shove the aspect of awareness of ICT by the society surrounding SMEs into the attention as a crucial factor that impact technological adoption in enterprises within the industry.

Limitation of institutional theory.

This theory fails to widely describe the variety of empirical findings in the literature and hence several limitations as current researchers tend to explain the concept of institutional diversity for example, it argues that the presumed unidirectional coercive results of laws and regulations tend to change the institutional diversity (Morphew & Huisman, 2002, p. 498).

Another limitation is on the concept of isomorphism which has not been satisfactorily explained by either institutional theory or population ecology in organizational context, therefore Oliver, (1988) gives the suggestion that organizations should concentrate on their internal activities and structures and leave the pressures of outside for their own survival and development.

Diffusion of innovation theory (DOI)

This theory by Rogers, 1995 has broadly used by researchers to make people understand the way diffusion of innovation and adoption by individual takes place. The theory is important to study the impact of ICTs on SMEs performance in the sense that application of ICTs makes difference in performance between SMEs as per adopter categories explained in this theory. On the other hand ICTs ranks according to knowledge, persuasion, decision, implementation and confirmation are vital in the impact of ICTs to the performance of SMEs. The theory categorizes users of ICTs as early adopters (13.5%), early majority (34%), late majority (34%) and laggards (16%).

Innovators (2.5%) these are very important people who are normally interested in new ideas and they have substantial resources to reduce and mitigate risks associated with innovations. These innovators are normally not respected by other social groups in the diffusion of innovation system however they are the ones who behave like gate keepers to deal with new ideas and come up with new technology, (Sahim, 2006).

Early adopters (13.5%). Rogers (1995) stated that, these are first local network members and possess the highest level of opinion leadership in systems and so they are highly respected than others in the system. They provide suggestions and advices to others about the innovated technology because they are the technology change agents since they participate in hastening the innovation adoption (Rogers, 1995).

Early majority (34%) these adapt new innovations after some average early adopters, their characteristic is frequent cooperation with their peer but have very narrow vacancy to occupy the opinion leadership of the system, they are regarded as the vital link in the adoption of innovation but most of them are afraid to become the first to adopt innovation while on the other hand they don't want to be the last ones, their decisions takes time (Sahin, 2006).

Late majority (34%) these players adopt technology innovation with high skepticism and cautions; they adapt new ideas after the significant members have adopted already. It comprises of one third of the total members of the system, pressures coming from the peers pushes these segment to adopt new innovation. They have scarce resources and they scare to gamble it to uncertainties about innovation.

Laggards (16%) these are the last members of the social group who adopts technology, they normally refer from the past experience to make decisions (Rogers, 1995), they raise different suspicions concerning change agents and innovations.

Limitations of diffusion of innovation theory.

Evidences of this theory together with adopter categories were not originated from public health and it did not apply in the adoption of new behaviors or health innovation.

It did not allow participation of the members in developing programs relating to health services businesses. The same tend to work well with behavior adoption than seizing or preventing behaviors, does not consider individual resources or social support in adopting new innovation.

Different business models evolve due to different types and use of ICT facilities that affects the service quality, innovation, resource usage and flexibility. Business performance comes out as a product of several determining factors. This raises the need to study the proposition value of ICT use and application as they relate to business performance.

Enterprise ICT leadership is essential for development of any business enterprise, ICT department with proper leaders are the ones responsible for continuous innovation and linking the system with the organizations mission, vision and strategies so that the end result are beneficial to the organisation as a whole continuously.

ICTs cost awareness, literacy, pervasiveness and mastery in application of ICTs which contribute to the performance of SMEs directly. Therefore for any SME to perform better ICT department is one of the vital units if the organisation which should be performing well and should be cost effective.

2.2.3 Identification of whether use of ICTs Impact SMEs Performance

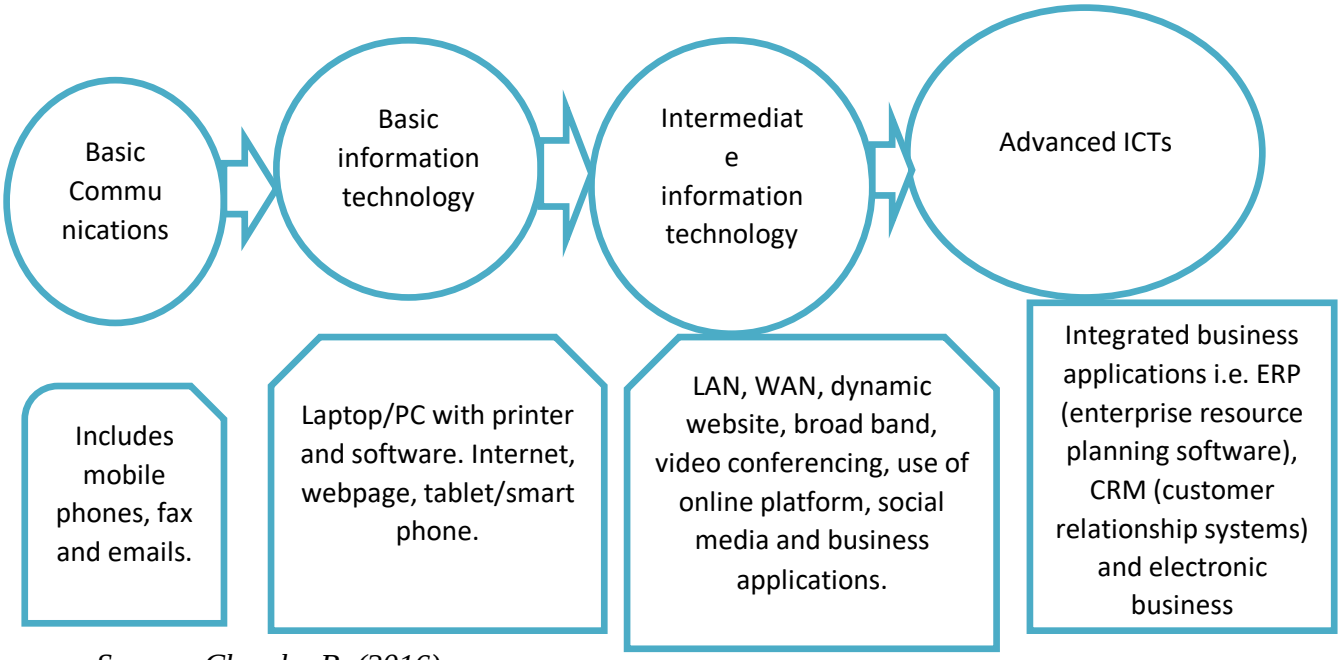
It is very important to identify whether usage of information and communication technology has impact on small and medium enterprises performance. Schubert (2007) suggested that many firms which adopted and used ICT in their operation has performed better in their customer satisfaction, profit generation, data storage and dissemination and many other aspects which are important for SME sustenance and growth.

OECD (2015) revised model also described the importance of using ICT in SMEs and concluded that, SMEs which used ICT facilities in their operations has gained more than those which didn't however spotted that the speed of yield of ICT is very slow because it take a huge investment cost which is then paid back after a long period of operation which stays longer and results to high performance of the firm. Initial investments are expensive but maintenance are somehow low than initial adoption expenses.

Despite the high rate of large firms to adopt and apply ICT, SMEs lag behind in the process and yet don't benefit much from ICT, remembering categories of ICTs discussed earlier some of them are used and adopted by SMEs in Tanzania.

Some SMEs uses ICT facilities ranging from elementary technology like radio and fixed lines phone to more developed technology like email, e-commerce and systems to process information which then expands the business processes to e-business stage. It should be kept in mind that not all SMEs uses ICT to the maximum complexity however the diagram below indicates level of ICT used in SMEs to yield positive performance.

Figure 2. 1: Usage levels of ICT in SMEs



Source; Chumba B. (2016)

Initially SMEs adopt basic communication as an entrance to ICT world, here SMEs uses telephones, fax and email sometimes with fixed lines, normally these facilities are less expensive compared to those adopted at intermediate and advanced. The basic communications adopted helps SMEs to interact with its suppliers and customers without physical visitation. Many sole proprietor structures with one to three employees use this type of ICT as a result their performance are also limited since only clients with known contacts are reached and many whom the SME is un aware of its contacts has not been reached.

The next step after basic communication SME may upgrade to basic info-tech at which may have a laptop or PC installed with operating system, antivirus and sometimes without internet connections,. SMEs processes words, excel, accounts and similar business tasks with such basic information technology and improve its performance whereby by this ICT stage SME has been able to maintain customer database, process documents in typed words and raise status of official correspondence as well as ability to store data electronically.

At intermediate level, SMEs move a step in ICT on which they use internet and its features like emails, websites, file sharing and e-commerce. Most of SMEs become satisfied at this level specifically in service firms like tourism and consultancy. SMEs performance improves at this stage because customer base increases, range of services increases, business network expands through online operations and so the quality of service delivered increases. SMEs which are dedicated for value addition and serving large number of customers as well as targeting to grow to large corporates tend to adopt advanced information and communication technologies which are more expensive and complex than intermediate. It may integrate, inventory management systems, payroll systems, accounting packages in short the whole ERP software and thereby its performance may boom in all aspects including high service quality, high flexibility, optimal resource utilization and continuous innovation. Adoption of advanced information communication technologies by SMEs can be either by jump or progressively (Basole, 2006).

2.2.4 The assessment of awareness of ICTs to impact SMEs performance

For the SMEs to benefit from use and application of ICTs, managers and owners or top management of the SME should be fully aware of the ICT meaning, usage, current developments, costs as well as its associated benefits towards performance of SMEs in both financial and non-financial aspects (Massenge, 2014)

There have been several studies which touched the aspect of awareness of ICT by key personnel towards performance of SMEs specifically on profits, customer service and satisfactions, competitiveness and capital base of enterprises. However most of their conclusions favored large corporates as their top management are full aware of the ICT updates and development compared to SMEs owners and managers. They revealed that since most integrated and advanced technology has been adopted by large corporates then these are the ones that are too sensitive and aware of ICT developments because they always want to stay competitive and profitable. They even spend some substantial amount of money to train their workers and ICT so that to increase ICT awareness and to protect themselves from new spywares, viruses and so on (Nassiuma, 2018).

ICT awareness level, eagerness and literacy are vital for SMEs to grow, to perform better and for their safety and security. The contents of institutional theory and diffusion of innovation theory can be linked with awareness whereby in institutional theory, SMEs may become aware of the new technological innovation after it has been adopted and applied by large companies and so may tend to imitate it also SMEs can imitate the technology form the competitor, these are well described in the relevant institutional theory, also the level of awareness, eagerness and literacy can be viewed well in the theory of diffusion of innovation by Rogers (1995) where by the very eager part of innovation in ICT are called early adopters which are only 13.5 % of all users followed by early majority 34%, late majority 34% and laggards 16%.

2.2.5 The cost of ICTs and its impact to performance of SMEs

Challenges on the costs of hardware, software, infrastructures, maintenance and other expenses relating to information and communication technologies have posed a hindrance to many SMEs to adopt ICTs. Many of these enterprises are still growing their capital and not stable enough to invest a huge amount of cash so as to receive returns on investment after substantial period of time (Matambalya & Wolf, 2001).

SME costs to adopt ICTs are not the same but they differ according to their usage categories, low costs are incurred with SMEs using basic communication technology and keeps on increasing as they approach advanced information and communication technology, this is reason why most of SMEs have adopted ICT categories which are less advanced and so experience low performance (Bonn, 2001).

SMEs performance models.

Assessment of SMEs performance can be viewed into multiple perspectives, below are some of the focal models on SMEs performance;

First perspective contains firm's growth models which show soft performance measures. These models tend to explain the mechanisms of which firms grow from their scratch point to fully functioning entities. Usually these models are qualitative.

Second perspective of business performance models weighs more on performance prediction and are quantitative in nature with two sub groups categories namely, firm's dynamic theories and financial failure prediction models.

These performance models has challenges some of them being, dynamism of immature firms where by special care should be exercised to the immature businesses than stable firms when measuring performance. Also measurement approaches which use profit as a direct measure of firm's performance should include the leading indicator to measure future success on its exercise since profit is a lagging indicator and does not change immediately.

Managers of SMEs are encouraged to apply feasible models of performance, the hypothetical model should consider the nature and kind of modern economy and ICTs which enables SMEs to adopt the structure which is open (Globerman S., 2001) Fitzgerald, Johnston et al. (1991)suggested the performance measurement structure which can be adapted by SMEs, it consists of six dimensions which are grouped as performance results (competitiveness and financial performance) and determinants (quality of service, flexibility, innovation and resource utilization).

Fitzgerald, Johnston et al. explained that, in case performance determinants are realized its side effect is performance improvement in SME and the same can keep improving by reviewing the determinants by close monitory and evaluation.
This advanced performance bring about progressive performance of SMEs can be evaluated from numerous perspectives, the following is a summary of assessments of the focal business performance improvement theories:

Performance improvement theory by Coase (1937) stated that the nature of the firm, debates on the grounds of firm's existence and growths and discussed by the transaction cost theory, which mentioned the market participation cost and the way it adds to the business performance thereafter scaled growth. According to researchers' several ideas of SMEs performance, for which reasons for attribution to the expansion scale are given based on growth mechanism.

Most of these scales look at firm performance from the economic outlook as Coase, who viewed that if the business arranged an additional transaction the scale of the firm will grow while the opposite is if transacted by another firm, hence the additional transaction cost in the organization equals the cost to finish this transaction in the market or the cost of the added transaction done by another firm.

Another type of business performance theories have their basis on the enterprise lifecycle and biological theories and so consider the dynamic features in measuring the enterprise growth following life stages. This theory evaluated growth of the business in such a way that it undergoes birth, grow to maturity then die same ways as an organism. This theory is called gene combination theory and resembles the economic life cycle concept of the firm in economics.

Lastly relative theory is one among the theories which explained the business performance improvement, this originated from the concept of resource management and stimulated via assessing and analyzing the quantity, extension, structure and foremost topic of management resource. By applying this theory business growth can be viewed from three major corners which are scale, diversification and competitive force. Enterprise growth force refers to the ability of the business to appreciate the extension of quantity and enrich the quality in the coming period Li Zhicheng and Diao Zhaofeng (2003, P.86-89) (Tang, 2005, P.17-21) explained that firm's expansion was an interactive process comprising scale extension, knowledge accumulation and system construction (Chumba., 2016).

Penrose's theory of the growth of the firm states, firms growth is in static progress of management working together with resources which inspires continuous progression although my hinder the rate of growth. For the business to grow there should be a bunch of resources some of them ICTs which should be interlinked with the manager's ideas, experience and knowledge.

According to these theories of firm performance development, the following reasons are taken as critical measurable aspects of business performance viewed as market share and profit by Coase, management resource stated in the firm's capital structure and employees or systems based on lifecycle and biological theories.

2.3 Empirical literature review

2.3.1 Studies in Tanzania

Kemilembe (2017) reported that there is a link between ICT and performance of businesses. For example hotels which uses ICT performs far good in turnover/sales. Number of workers and working capital. Through the use of logistic regression he revealed that computerized reservations process, management system and supplies techniques and the status of the hotel as important constructs in affecting performance of the hotel.

Musabila (2012) concluded that large number of small and medium enterprises has adopted emails and basic applications of web technologies and the same performs better than the small and medium enterprises that didn't adopt any of such ICTs however the study confirmed that private sector leads in ICT adoption over government sector.

Nyangalika, (2016), established that networking via ICT use were adopted by SMEs in their usual operations and helped to increase productivity, accessing the markets, and profitability that included improved business functionality, raise in profit margins and allows SMEs to advertise their products and services. They also found that networking through ICT usage is important in SMEs to the extent that require support in knowledge management to attain the business objectives. Finally the study recommended that, SMEs should involve ICT trainings and formation of well structure policy which focuses on ICT use so as to reduce costs and so on.

According to Matambalya & Sussana (2001) the use of ICT by SMEs in Tanzania has been increasing as the time goes, the use of fixed phone lines almost approaching to saturation point, the proportion of enterprises which uses phones increases fast in

Tanzania even though it started late during 1994 and it has totally outgrown fax machines. Based on this study most of the enterprises which uses ICTs showed positive performance in all cases including competitiveness results than those which doesn't. 88% and 76% increase in management efficiency firm's rivalry respectively where contributed by deployment of computer applications. Regional markets has grown substantially due to the use of mobile phones tailed by fixed phones and faxes.

Investment in ICT seems to have negative specifications as per empirical findings by Matambalya & susanna (2001), however usage of fax machines by managers has provides access to formal information that links positively to the productivity of SMEs in Tanzania. Also argued that SMEs which uses computers and cell phones has improved in management and competition (Matambalya &susanna, 2001).

International Telecom Union (ITU) involved in the process of rating the ICT diffusion in Tanzania in 2009 and the results revealed that 1.3% were the internet users that is 520,000 users with the penetration average of 23% in the whole world and the rate of 4.2% in the African continent. This indicates that Tanzania has very low rate of penetration compared to the averaged Africa rate (Kemilembe, 2017).

Some studies conducted in Tanzania indicates that information and communication technology is frequently used by wood processors on which 45.9% of SMEs use it (Nielinger, 2003) also SMEs apply ICT in book keeping and accounting 26.4%, emailing 20.9%, receiving and executing orders 20.3%, in inventory tracking and control 9.5% and in production 6.1%. These statistics brings the alert that many should be done by SMEs in ICT in Tanzania to improve its performance going forward (Kemilembe, 2017).

Esselaar et al (2007) did a research on the profitability of SMEs due to ICT application in eight African nations including Tanzania. They noticed that in SME, ICTs helped much in minimizing transaction costs (and so improving efficiency) and expanding market access. They provided examples of new financial products and services which was innovated due to existence of mobile or Internet platforms. Also, they declared that

finding new products, increasing customer awareness of the products available and sourcing new markets were made easier through application of ICTs. They concluded that combination of sector production functions and the correlation between profitability and value of ICT investments relative to the value of total investments suggested that use of ICTs might be more likely a cause of SME profitability' (p.68).

Generally large percent of the studies read based on Tanzania has revealed positive results concerning information and communication technologies impact on small and medium enterprises. Performance on SMEs on profitability, competitiveness, customer base and number of employees improved as a result of adopting and usage of information and communication technologies.

2.3.2 Studies outside Tanzania

A research done by Skopo et al (2006) about adoption of ICT for Croatia and Australia based SMEs gave the conclusion that upgraded ICT such as intranets, SMEs in Australia need a mixture of casual conditions to be in order, presence of technological upkeep, existence of individual support even if government support will be absent. It also stated that ICT Croatia was not supported by politics instead was left to individuals who have knowledge in ICTs. The impact of technology caused adoption of other higher forms of ICT.

Therefore the Australian SMEs, deployed ICT due to high impact of technological factors as well as government factors which supported the ICT (Skopo et al, 2006:39).

Skopo, Ceric and Huang (2008) constructed a model of ICT adoption by Chinese SMEs. They agreed that employing basic IT in Chinese SMEs has been done under the presence individual and technological factors however the political support was not favorable for the adoption to take place. The whole process was done by individuals with quality ICT skills to do them in their own as to adopting other higher forms of IT/ICT, they were introduced by the impact of technological factors with obvious absence of all other factors.

A study from South Africa by Ismail, Jeffery and Belle (2011) was conducted to ascertain the SMEs use of ICT, The study confirmed that ICT usage in SME certainly

added value to the SME, with the most rated value added being improvement of customer satisfaction level, advancing service delivery in SMEs, which in turn served their customers. Nevertheless, the researchers identified that SME owners has the same thought of ICT greater expense to the SMEs as compared to its return on investment. They then concluded that poor understanding of the benefits of ICT was one amongst the SMEs sampled in this research (p, 11).

Kiveu and Ofafa (2013) in their study about SMEs in Kenya and their use of ICT in marketing activities revealed that ICT usage in marketing by SMEs is still down despite the fact that SMEs have the access to the same. Many enterprises used ICT for communication, networking socially and overall information gathering. Also the study indicated that there were low awareness in the opportunities which ICT provides for marketing development. Based on their findings, limitations of use of ICT in marketing was attributed by perception of high costs associated with the acquisition and running ICT and its facilities, safety and security together with ICT skills and expertise.

Lal and Peedoy (2006) concentrated on the ICT adoption by SMEs in Mauritius. They wrote that despite entitlement of being a cyber-island, SMEs adoption of ICTs has been developed from far to being the integral feature named as Mauritanian SMEs. The major hindrances for ICT development in SMEs based in Mauritius has been identified to be Cost of communication and lack of opportunities to lean and acquire the relevant knowledge.

Therefore mixed experience in many African and developing countries has been noted concerning the use of ICT for SMEs performance improvement. In one way or another they are impeded by factors like, poor and unstable power supply, inefficiency and high cost internet services, lack of proper ICT skills (Apulu et al, 2013), huge costs of investments, inadequate connections, few expertise, having business partners who doesn't apply ICT anyhow and some countries poor ICT support from government. The inflated expenses of communication lead to increased input costs of the business in developing nations.

As per Economic and Social Research Foundation (2009) indicated that SMEs mostly are labor intensive and brings employment opportunities however with low investment per job created. Furthermore it was noted that via business connections, partnership and sub-contractions relations, SMEs potentially suffice large corporates in productions and service delivery. On the other side SMEs are better places for junior and senior personnel training for entrepreneurship, leadership, management and allows motivated individuals to find new ventures to invest and expand operations.

Research Gap.

A study done in OECD nations indicated that whilst many enterprises possess a broadband connection, 95% of firms having above 10 workers in 2014, only 31% use ERP (enterprise resource planning system, 22% employed cloud computing services and 21% receive electronic orders. Mean sales through ecommerce stood at 16% of total sales, and business to business transactions contributed up to 90% of all ecommerce sales, still there is significant difference between small enterprises and large ones as very few SMEs in developed nations has adopted advanced ICT facilities, (OECD, 2015).

On the other hand this part of study is still under-researched in developing nations since many scholars provides results as found in regions and areas of Europe, USA, Asia and Australia but less literatures reveal outcomes of research conducted in Africa. Less than 5000 articles were written with case studies in Africa while more than 60,000 articles referred to other continents of developed nations.

The time difference between the outcomes of the ICTs and its investment may have contributed to the slow adoption of ICTs to the SMEs since the period of yield is very significant and discourages firms to adopt the same. However little studies of similar nature have been carried on in SMEs.

Furthermore, some of the studies on impact of use of ICTs towards performance has been concentrating on the productivity of the firms and so they are narrow because ICT can impact performance by facilitating improvements in customer services, expanding business networks as well as products quality improvement. This resulted to more

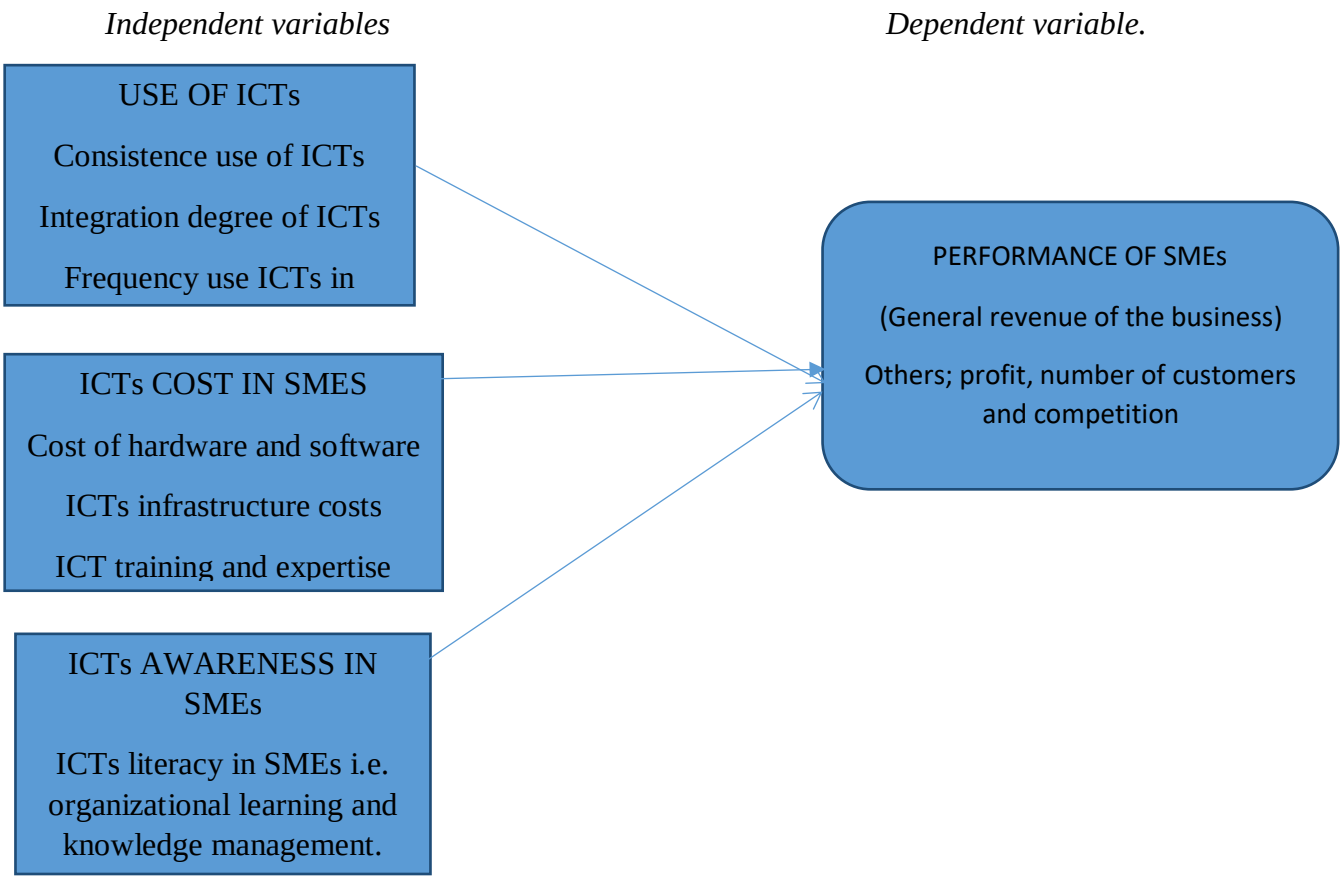
investigation to disclose more on the relationship between ICTs and SMEs performance to give out more incentives on ICT application to SMEs.

2.4 Conceptual framework

The below diagram indicates the relationship between the variables both independent and dependent variables. For the purpose of this study independent variables includes, cost of ICTs, awareness of ICTs and use of ICTs while on the other side dependent variable is SME performance. The stated variables are both qualitative and quantitative, and are quantified according to the indicators in each variable. Three independent variables were tested to see whether they impact SME performance.

The below diagram indicates the relationship between independent and dependent variables of the study;

Figure 2. 2: conceptual framework



Source; Bobby (2016).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section represents research methodologies that were employed when conducting the study, it explained in details the approaches which were used, research design adopted, geographical location of which the study has been carried at, population target, sample size to be selected, sampling technique to be deployed, types and origin of the data to be collected, data collection and analysis methods to be used as well as the validity and reliability of the data to be collected and analyzed.

3.2 Research design

For the aim of conducting this research, descriptive survey design has been used, this survey is appropriate since the study has studied large population and so it has become hard to spot the characteristics of every SME (Mugenda, 2003). The method were helpful in gathering both original and specific data on SMEs growth and expansion because data are naturally limited in this part. By using the selected research design it was possible to produce statistical and descriptive data which were used to determine the connection between variables of the study and so generated meaningful statistical information about the impact of ICTs on SMEs performance.

As per Aaker et al (2002) research design may be referred as the systematic blue print used by the researcher to direct and monitor or guide the research study towards its objectives

The chosen research design has also helped to describe necessary findings rigorously and to keep them away from bias and misrepresentation, the same served to obtain new meaning, described on anything existed, tested and the rate of happening of something (Jones, 2010).

3.3 Targeted population

The population mainly targeted by this study is small and medium enterprises at Kariakoo market in Ilala district Dar es salaam, Tanzania.

Dawson (2002) argued that geographical location serve to constrict down research topic and resources in both budget and time, for the aim of this study Kariakoo market has been the place of study. The subjected SMEs were only operative ones with employees up to 99 people and capital investment of less than 800 Mil as per Tanzania SME policy (2003).

All SMEs studied were located at Kariakoo market and were provided with contact details which include emails and telephone and/or cell phone numbers for more verification. The same did not contain the branches or subsidiaries of the large corporates rather the study evaluated results of purely independent SMEs and not mere corporate subsidiaries.

Singh (2007) referred to population as collection of individuals, objects or simply things from where a small representative number of them called a sample can be drawn, studied, measured, tested and evaluated, the results obtained has been used to infer the whole group of individuals or items.

As per National Baseline Survey Study (NBSS) of 2012, there were approximately 3.2 Mil SMEs in the country and approximately 1.7 Mil SMEs in trade sector. Dar salaam had not less than 405,902 SMEs in its entire five municipalities during 2012 as per NBSS.

The estimated number of SMEs which are registered and operating at Kariakoo market place comprises of different sectors however for the purpose of this study SMEs registered at trade and consultation service sector which are many at the area has been considered.

3.4 Sampling design and sample size

Krinshaswami (2002) describes sampling as the process of selecting representative of individuals, objects or items from a large population from which the results obtained are used to infer the whole population. For the purpose of this research the researcher used convenience sampling technique to determine the sample size from the population.

NBSS (2012) provided SMEs data region wise and percentage wise however the real amount of SMEs operating at Kariakoo market is huge and changing. Due to that reason researcher decided to select a sample of 172 SMEs has been studied (through convenient sampling). This sample was acquired by calculating 15% of the selected SMEs under trade sector and consultation services.

Stratified random sampling.

As defined by Kothari (2004), stratified sampling is the technique which is used to select the sample from the population which does not contain homogeneous respondents, the researcher were required to choose representative sample from each stratum to obtain required sample size.

Stratified random sampling was applied to get respondents from SMEs for the aim of conducting a systematic study. Respondents were identified from their stratum according to their convenience.

Convenience sampling.

Chepkilot (2005) defined convenience sampling as the process of choosing units for studying and testing as they become available to the researcher. The method was applied in this study to gather data from entrepreneurs owning and managers running enterprises in Kariakoo market place.

Convenience sampling was selected due to the fact that it is less cost than other techniques, easy to adopt, speedy and available. Also the nature of respondents to be approached are more or less the same the same and found on the same setting (Kariakoo

area), that means the challenges, advantages, issues and business regulations were similar and so convenience sampling was reasonable to be used in this research.

Table 3. 1: The Study Sample.

Chosen SMEs	SMEs chosen	Selected sample.
Mobile network operators (MNOs) money dealers and bank's agents.	231	20
Boutique shops	670	20
Restaurants	55	20
General merchandise shops. (home consumables)	150	20
Consultation Firms	75	20
Total	**1,181**	**100**

Field data (2019)

3.5 Data collection approaches

The researcher collected both primary data and secondary data.

The primary data has been collected by using questionnaires because as Kothari (2004) explained, questionnaires gives respondents enough time to provide well though responses and it becomes easily to obtain answers even to the personnel who are not easily approachable because they can fill the same at their convenient time. On the other hand questionnaires provide more objective answers and were conducted by applying drop and pick method. This method has been useful in providing both quantitative and qualitative data.

Secondary data on the other side were collected from libraries, business articles and journals, newspaper, internet as well as SME articles which were published and have connection to the main topic of this study.

3.6 Data analysis and procedures

This is another necessary stage in research which helps researcher to reduce the huge number of collected data into reasonable and manageable size. It also involves making summaries, observing the patterns and using statistical methods/techniques to create

the information that are relevant to answer the research questions and give presentation of the finding results into a more attractive, understandable and convincing way.

Normally the data analysis technique varies with the category of data collected, technological level and the results required, type and level of information needed UNDP (2009). To some levels it also varies based on the data volume and type (Creswell, 1994)

The procedures which were developed by qualitative research was used to capture, code and analyze primary data obtained through questionnaire.

The data collected has been analyzed by the descriptive statistics. Cross tabulation and central tendency measurement (i.e. mean) has been applied to determine the way data tend to agree whereas variation and standard deviation as measures of dispersion was also used to determine the degree at which data vary from the central point. Therefore analysis of qualitative data by using content analysis and inferences made.

Data has been presented by the aid of frequency tables and cross tabulations.

The sophisticated computer program SPSS (Statistical Package for Social Science Research as well as MS excel Microsoft excel 2007 has been applied to process data and in writing final research report.

3.7 Validity and reliability of research instruments

One among the important aspect of any study is the validity of the research instrument, Kimberlin et al (2008) shortens by defining it as degree or extent of measure that the instrument is required to measure.

Based on Kimberlin et al (2008), in order to evaluate the hypothesis validity it is vital to first examine the relationship or connection of the measure to be evaluated by variables identified to be theoretically connected to the hypothesis measured by the instrument.

In addressing validity, Kimberlin et al (2008), argues that, is a type of validity which shows how well items developed to operate a construct or hypothesis gives are adequate and how well is the representative sample which has been used to measure the interested construct.

Criterion related validity refers to the kind of validity which gives evidence on how good scores on the new measure relate or correlate with measures of the same hypothesis done by others or very similar hypotheses which theoretically must be related. It is very important that the measures are valid Kimberlin et al (2008).

The questionnaires of this study was simple and comprised all variables indicators with brief questions that insured research objectives are well responded. They guaranteed that suitable and meaningful conclusion of this study is conquered.

In this study the questionnaire included all contents of the variables which have been simple with precise questions to ensure the research objectives were adequately answered. This ensured that appropriate and meaningful conclusion of the research study has been attained.

Cooper et al (2006) argued that a measure has been relied to the level which it gives consistent results. He added that reliability is mainly deals with estimations of the degree to which a measurement is free from both random and unstable errors. Instruments which are reliable were used with confidence which temporary and conditional factors did not interfere.

The characteristic of reliable instruments is that, they are robust and can work properly at different situations. This difference of time and situation is the main base for regular use perspective of reliability-stability, equivalence and internal consistency. It has been conducted prior to the data collection activities. Similar procedures were used in the actual data collection exercise.

The pre-test of the sample was significant when doing this study because it has taken into consideration the factors like, deficiencies e.g. imprecise direction, narrow space

to write the responses, wrong phrasing of questions, identifying vague questions and correctness and appropriateness of the analytical method ascertained Scott, (2006).

More essentially, piloting helps the researcher to ascertain validity and reliability of the questionnaires and other methods used. Then the researcher has pre-tested 10% of the selected sample size before the actual process of data collection started. It was done by the researcher himself and the nearby entrepreneurs and lastly the research instruments has been submitted to the supervisor so as to obtain professional and intellectual judgment concerning their adequacy for collection of relevant data before being used in actual data collection activity.

CHAPTER FOUR

PRESENTATION AND ENTERPRETATION OF FINDINGS

4.1 Introduction

This section of the research paper concentrated on the analysis, interpretation and presentation of data corresponding to three research objectives as they has been responded by four kinds of SMEs (i.e. Mobile network operators (MNOs) money dealers and bank's agents, General merchandise shops, boutique shops, restaurants and consulting firms. It covers demographic characteristics, impact of ICT usage, awareness and costs on SMEs performance in Kariakoo market at Ilala municipal Dar es salaam city.

Response rate

During data collection process, the questionnaires were administered face to face to 100 respondents from businesses specialized in general merchandise, money transfer, boutique, restaurants and consultants. Each business category has twenty administered questionnaires. All questionnaires were fully responded however five of them were partially responded and so making fully responses of 95% and partial 5%. The return can be represented statistically and their results can be generalized to the whole population. The statistical outcome has been triangulated to see whether they agree with similar research findings and the theories selected to explain the research objectives.

4.2 Back ground of respondents

This part explains the background characteristics of the respondents who were part of this study. The respondents were the managers and owners of businesses at Kariakoo market in Dar es salaam and their background and characteristics are based on their age, gender, level of education, number of years in business operation and the type of business specialization.

The table below shows age of respondents.

Table 4. 1: Age of respondents.

	Frequency	Percent
below 25	10	10.0
25-35	36	36.0
36-45	47	47.0
46-55	6	6.0
above 55	1	1.0
Total	100	100.0

Source: Field Data (2019)

The table above shows 100 respondents who responded to the questionnaire and their corresponding percentages. 10 respondents equal to 10% were aged below 25 years, 36 respondents equal to 36% were aged from 25 to 35 years but 47 of them were aged from 36 to 45 years equivalent to 47%, respondents with age from 46 to 55 years were 6 equal to 6% and only one (1) equal to 1% was aged above 55 years. These data indicates that most responded age group was those of age from 36 to 45 years old.

4.2.1Gender distribution of respondents

The research study was conducted to a total of 100 respondents, 71 of them equal to 71% were male and the remaining 29 equal to 29% were female. Therefore mostly participated gender was male at 71%.

4.2.2 Level of education of respondents

Table 4. 2: Respondent's education level.

	Frequency	Percent
Standard seven	9	9.0
Secondary	47	47.0
Diploma	17	17.0
Degree	23	23.0
Masters	4	4.0
Total	100	100.0

Source: Field data (2019).

As displayed on the table above 4 respondents equal to 4% have master degree, 23 equal to 23% as degree while 17 of them equal to 17% have diploma and 47 respondents equal to 47% have secondary education. However 9% which is equal to 9 respondents had standard seven educations. From the statistics, it can be stated that high response was given by the respondents who have secondary education.

4.2.3 Years in business operation

Table 4. 3: Number of years in operation.

	Frequency	Percent
Less than 5	35	35.0
5-10	45	45.0
11-15	18	18.0
16-20	2	2.0
Total	100	100.0

Source: Field data (2019)

The results in the table 4.3 above shows that 35 businesses equal to 35% had been in operation for less than 5 years, 45 businesses equal to 45% operated for between 5 to 10 years, 18businesses equivalent to 18% had been in operation between 11 to 15 years whereas the rest 2 businesses equal to 2% has been in operation from 16 to 20 years. Therefore it can be clearly said that most questioned respondents was those who has been in operation for 5 to 10 years.

4.2.4 ICT equipment which are used in business

The section spots the number of businesses which employed ICT tools and equipment in their operations and those which didn't apply ICT in their operations.

Table 4. 4: ICT equipment and number of users before ICT adoption.

	Frequency	Percent
Not used ICT	5	5.0
Cellphone	32	32.0
Cellphone, printer and computer	15	15.0
Cellphone and EFD machine	3	3.0
Cellphone and POS	15	15.0
Selcom machine	5	5.0
Cellphone and computer	23	23.0
Computer , POS and cellphone	2	2.0
Total	100	100.0

Source: Field data, (2019)

The data shows that most of the respondents used cellphone in their business operations, this represents 32 respondents equal to 32% and the other 23 equal to 23% used cellphones and computer to operate their business, 15 respondents equal to 15% used cellphone, printer and computer, also another 15 equal to 15% used cellphone and POS, 5 respondents equal to 5% used selcom machine and 2 equal to 2% used computer, POS and cellphone. However five respondents did not reply to this question.

The results used that the most used ICT device was the cellphone which was applied in almost every category either independently or together with other devices.

4.3. The impact of cost of ICTs on performance of SMEs

This part showed and discussed data on cost of ICT and performance of SMEs before and after ICT adoption. The section checked some selected aspects of costs which are, cost spent to buy working materials if economical, cost of ICT facilities, cost of other working facilities and cost of training of businesses, their results are checked before and after ICT adoption. Cross tabulation between the mentioned cost aspects and general revenue of the business has been done to check whether the respondents strongly disagree, disagree, are not sure, agree or strongly agree if the costs aspects above impact the performance of SME through general revenue. After that mean and standard deviation on the variables has been explained.

Table 4. 5: Response % on revenue before ICT adoption.

General revenue was better before ICT implementation		Business specialization					Total
		General merchandise	Money transfer	Boutique	Restaurants	Consultation	
	disagree	18	16	17	9	17	77
	not sure	1	3	2	5	3	14
	agree	0	0	0	3	0	3
	strongly agree	0	1	0	0	0	1
Total		19	20	19	17	20	95

Source: Field data, (2019).

Among 100 respondents questioned from different businesses as indicted in the table above with 20 questionnaires from each business section, the results indicated that majority of respondents (i.e. 77%) disagreed on whether the cost of ICT before ICT adoption improved general revenues of the business.

The 77% of respondents who disagreed about positive impact of ICT costs before ICT adoption consisted of 18% general merchandise owners/managers, 16% money transfer business owners, 17% from boutique shops, 17% consultation business owners and only 9% from restaurants.

Generally majority disagreed that ICT costs before ICT adoption did not impact SMEs performance as measured by general revenues.

Table 4. 6: Mean standard deviation of cost/revenue before ICT.

		Money spent to buy working materials before ICT were economical	Cost of ICT facilities before ICT were beneficial than cost of ICT infrastructure	Office running costs before ICT were reasonable than ICT running cost	Cost of training before ICT were beneficial than cost of ICT training	General revenue was better before ICT implementation
N	Valid	95	95	95	95	95
	Missing	5	5	5	5	5
Mean		3.07	2.63	2.89	2.37	2.24
Std. Deviation		.981	.851	1.016	.669	.560

Source: Field data, (2019).

From findings of table 4.6 the respondents indicated that to a good extent the cost of information and communication technology did not impact the performance of small and medium enterprises at Kariakoo market before ICT implementation. By a mean score of 3.07 money spent to buy working materials before ICT were not economical,

the mean score of 2.63 cost of ICT facilities before ICT implementation were not beneficial than cost of ICT infrastructure, office running costs were not reasonable than ICT running cost by a mean score of 2.89, cost of training before ICT were not beneficial than cost of ICT training by mean score 2.37 and the general revenue was not better before ICT implementation by a mean score of 2.24. This was also not supported by Chumba. B, (2016) who argued that ICT costs were not significant measures of ICT performance however spotted some costs like recurrent ICT costs and costs of hiring ICT expertise were significant.

Table 4. 7: Response %ICT cost on revenue after ICT adoption.

ICT costs after ICT adoption	Business specialization					
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	Total
disagree	0	1	0	0	0	1
agree	18	18	17	14	14	81
strongly agree	1	1	2	3	6	13
Total	19	20	19	17	20	95

Source: Field data (2019)

Considering 100 administered questionnaires which involved 20 respondents who are business owners and managers of each of five different businesses including general merchandise, restaurants, boutiques, money transfers and consulting businesses located in different points in Kariakoo market place, the following results about impact of cost to general revenue after ICT adoption has been depicted.

Large number of respondents 81% agreed that cost of ICTs after ICT adoption has positively impacted revenues of the business. Within 81% respondents, 18% were from

general merchandise shops, another 18% were from money transfer businesses, 17% boutiques and 14% response from each of restaurants and consultation.
Therefore ICT costs incurred after ICT adoption had positively impacted the performance of small and medium enterprises through improving general revenues.

Generally, the large number of respondents agreed that ICT costs incurred after its adoption is beneficial and impact the general revenue of the business by improving it and so positive impact to SME performance. The above findings supports argument by Matambalya and Wolf (2007) who said that information and communication technology impact positively to fast access to the market, rises selection power, promotes communication, enhances spotting of markets, improves marketing and reduces business transaction costs.

Esselaar et al (2007) did a research on the profitability of SMEs due to ICT application in eight African nations including Tanzania. They noticed that in SME, ICTs helped much in minimizing transaction costs (and so improving efficiency) and expanding market access, this supports our findings.
Table 4.8, shows whether cost of information and communication technologies impact performance of small and medium enterprises at Kariakoo market after ICT Implementation.

Table 4. 8: Mean standard deviation of cost and revenues after ICT.

		Money spent on buying ICT are economical	The cost of training in ICT are reasonable	Revenues improved after ICT	ICT daily running cost are favorable	The costs of ICT infrastructures are favorable to business
N	Valid	95	95	95	95	95
	Missing	5	5	5	5	5
Mean		3.98	3.95	4.12	4.02	4.01

Std. Deviation	.252	.396	.409	.412	.178

Source: Field data, (2019).

The findings from table 4.8 above shows that after ICT adoption, to great extent respondents agreed that cost of information and communication technologies impact positively performance of small and medium enterprises at Kariakoo market. By a mean score of 3.98 the money spent on buying ICT were economical and mean score of 3.95 indicates the extent to which the costs of ICT training are reasonable. On the other side revenues improved after ICT implementation at the mean score of 4.12, ICT daily running costs are favorable by mean score of 4.02 and by the mean score of 4.01 the costs of ICT infrastructures are favorable to business. These findings go together with those revealed by Massenge, (2014) who argued that, the costs of production are reduced by application of information and communication technology through decreasing, security costs, operation costs and communication charges. Another scholar (Bonn, 2001) as per literature review explained facts that the more sophisticated ICTs are used by SMEs the more costs of it are incurred although the returns on investments in ICT are proportional to the costs incurred.

4.4 Impact of ICT awareness on performance of SMEs

This section presented findings of impact of ICT awareness on the performance of SMEs before and after ICT adoption, the study included a total of 100 business managers and owners found at Kariakoo market place as they run the selected businesses (i.e. general merchandise, money transfer, boutique, restaurants and consultation businesses). Awareness has been measured using aspects of, ICT training provided to staff, if the provided ICT training helped to meet business targets, if ICT manuals were provided after training and if they are helpful to improve the work and the availability of ICT experts to solve challenges in the business. Cross tabulation of awareness aspects and businesses general revenue has been performed and below table presents results before ICT adoption.

Table 4. 9: Response % on ICT awareness to revenue before ICT adoption.

	Business specialization					
ICT awareness before ICT adoption.	General merchandise	Money transfer	Boutique	Restaurants	Consultation	Total
	1	0	1	3	0	5
strongly disagree	1	1	2	3	0	7
disagree	9	13	10	11	16	59
not sure	3	2	2	3	4	14
agree	6	4	5	0	0	15
	20	20	20	20	20	100

Source: Field data (2019)

A finding from the table above indicates that, 59% of respondents disagreed on the fact that ICT awareness before its adoption impacted business performance as measured by general revenues. The 59% results consists of 9% from general merchandise owners/managers, 13% money transfer responses, 10% boutique, 11% restaurants as well as 16% consultation businesses.

In that sense ICT awareness before ICT adoption did not impact small and medium enterprises performance as disagreed by majority of 59%.

Generally the research question, are small and medium enterprises at Kariakoo aware to information and communication technologies to improve their performance? Has been answered that small and medium enterprises at Kariakoo were not aware of ICT before its adoption. All aspects of awareness above revealed that most respondents disagreed and strongly disagreed on awareness of SMEs in ICT likewise being not aware of ICT did not impact the performance of businesses as the revenue were not improved before implementation.

These findings go contrary with the findings by Bruce, (2002) who stated that ICT awareness increases owner and manager's literacy level and so boosts creativity and production of goods as well as delivery of services. But the same agrees with the findings by Chumba, (2016) who argued that, competence on ICTs is not the significant factor that impact SME performance.

Also findings agrees with the contents of the institutional theory that forms do not make decisions only basing on rational efficiency objectives but also cultural values of the society, since it was not the culture of the businesses or SMEs to provide training on ICT before its adoption therefore the ICT awareness was not obtained and no impact was noted on the SMEs performance (Lin & Liu, 2015; Gichira et al., 2012).
Kiveu and Ofafa (2013) their study indicated that there were low awareness in the opportunities which ICT provides for marketing development. Based on their findings, limitations of use of ICT in marketing was attributed by perception of high costs associated with the acquisition and running ICT and its facilities, safety and security together with ICT skills and expertise.

This second part of awareness presented findings of impact of ICT awareness on the performance of SMEs after its adoption by such businesses, same aspects has been used to give the result findings after cross tabulation process.

Table 4. 10: Response % on ICT awareness to revenue after ICT adoption.

ICT awarenes s after ICT adoption	business specialization					Total
	General merchandis e	Money transfe r	Boutiqu e	Restaurant s	Consultatio n	
	1	0	1	3	0	5
disagree	2	0	4	2	0	8
not sure	6	4	6	2	0	18
agree	9	16	9	13	16	63
strongly agree	2	0	0	0	4	6
Total	20	20	20	20	20	100

Source: Field data (2019)

The results obtained from 100 respondents of 5 different types of businesses as depicted from the table above, large number of about 63% respondents agreed that ICT awareness after ICT adoption impacted SMEs performance as measured by general revenue aspect of performance. The majority was made of 9% general merchandise, 16% money transfer, 9% boutique, 13% restaurants and 16% consulting businesses.

Therefore ICT awareness after ICT adoption has impact on SMEs performance as suggested by 63% respondents.

It can generally be said that the findings agreed that ICT awareness impacted SMEs performance through improving general revenues of the business after ICT adoption. These findings are in line with Nassiuma (2018) who said that large corporates are very aware of the ICT developments and so capitalizes on it by employing and training its man power so that to remain up to date and improve performance of their business.

Also Massenge, (2014) agreed with these findings whereby stated that for the SMEs to benefit from use and application of ICTs, managers and owners or top management of the SME should be fully aware of the ICT meaning, usage, current developments, costs as well as its associated benefits.

The diffusion of innovation theory (DOI) by Rogers 1995 supports the findings of this research that most of business managers and owners who are very much aware of ICT changes utilizes the opportunities and perform well in such a way that they becomes leaders of the market example, innovators and early adopters they are always aware of new technologies and invests in them to yield high performance of their businesses and it is vice versa to late majority and laggards.

4.5 Impact of ICT usage towards SMEs performance

This is another section that presents and discusses the findings on usage of information and communication technologies and the way it impact small and medium enterprises performance. The following aspects has been used to measure ICT usage against SME performance by using cross tabulation method of descriptive statistics. Service delivery level, simplicity of accounting/procurement/human resources or marketing and sales activities, completion of activities on time and ICT equipment are used in the business.

Table 4.11 indicates cross tabulation results between aspects of ICT usage versus general revenue of the business as indicator of SME performance.

Table 4. 11: ICT equipment used in business by respondents.

ICT equipment used	General revenue was better before ICT implementation				Total
	disagree	not sure	agree	strongly agree	
	1	0	0	0	1
Cellphone	25	4	3	0	32
Cellphone, printer and computer	12	3	0	0	15
Cellphone and EFD machine	3	0	0	0	3
Cellphone and POS	13	1	0	1	15
Selcom machine	4	1	0	0	5
Cellphone and computer	15	7	0	0	22
Computer , POS and cellphone	1	1	0	0	2
Total	74	17	3	1	95

Source: Field data, (2019).

Findings from table 4.11 indicates that large percent of respondents disagreed on the opinion that general revenue was better before ICT implementation, i.e. 74 users of ICT equipment equal to 74% disagreed on the opinion, whereas 17 users (17%) were not sure, 3 users (3%) agreed and only one (1%) strongly agreed. Therefore before adoption of ICT revenue of SMEs were not better. In this sense SMEs performance before ICT adoption were not impacted.

Businesses that specialized on general merchandise, restaurants, consultation, boutiques as well as mobile network operators operating at Kariakoo market were selected as sample SMEs to study on impact of ICT usage towards their performance.

Researcher administered the questionnaire to the owners and managers who were present on business premises to obtain responses on the set of questions.

Table 4. 12: Results of ICT usage % before its adoption to business revenue.

ICT usage before its adoption	business specialization					
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	Total
	1	0	1	3	0	5
strongly disagree	0	0	0	0	1	1
disagree	10	18	11	17	18	74
not sure	6	2	7	0	1	16
agree	3	0	1	0	0	4
Total	20	20	20	20	20	100

Source: Field data (2019)

Data presented above shows that, 74% of respondents disagreed that ICT usage before its adoption had impact towards revenues of the business. The majority response consisted of 10% from general merchandise, 18% from money transfer businesses, 11% from boutique, 17% from restaurants and 18% from consultation businesses.
Thereby the results tells that, information and communication technologies use before adoption has no impact to performance of small and medium enterprises.

This shows that majority of respondents did not agree if usage before its adoption yielded to better general revenue of the businesses. Therefore the use of information and communication technologies did not impact small and medium enterprises performance at Kariakoo market before ICT was adopted.

These findings are supported with the study made by McKinsey Global Institute, (2001) which said ICT are normally vital however not sufficient to enable gains of production but can improve essential SMEs businesses.

The theory of diffusion of innovation (DOI) supports these findings, it indicated that laggards and late majority are the last adopters and users of new technology they even tend to adopt it when the technology is about to leave the market and the same will adopters and users of new technology they even tend to adopt it when the technology is about to leave the market and the same has been reflected on their productivity and performance which has been low and of poor quality because of using obsolete technology in production. In this sense revenue and other performance indicators becomes low.

The findings are also supported by the theory of Technological, Organization and Environmental (TOE) by Tornatzky and Fleisher (1990), which says that high and fast innovations are seen in the high rivalry industry than in low rivalry likewise the high rivalry produces fast growing forms which copes fast to new technologies and provides death warrant to the slow adopter firms Mansfield et al, 1977.

Table 4. 13: ICT equipment % used by different surveyed businesses after ICT adoption.

ICT equipment used	Revenues improved after ICT			Total
	disagree	agree	strongly agree	
	0	1	0	1
cellphone	0	27	5	32
cellphone, printer and computer	0	11	4	15
cellphone and EFD machine	0	3	0	3
cellphone and POS	1	13	1	15
selcom machine	0	5	0	5
cellphone and computer	0	18	4	22
computer , POS and cellphone	0	2	0	2
Total	1	80	14	95

Source: Field data (2019)

Findings from table 4.13 indicate that large percent of respondents agreed on the opinion that general revenue was better after ICT implementation.

80 respondents agreed and 14 strongly agreed making 99% of respondents who agreed that ICT equipment were used in their businesses after it has been adopted. Most of them agreed to use cellphone (i.e. 32 respondents) followed by 22 respondents who agreed to use cellphone and computers however it should be remembered that almost all users used cellphone although 32 of them used cellphone alone while others used it in combination with other ICT equipment, they used it for direct calls to both suppliers and customers, they also use it (especially smart phones) to post new products so that to create awareness to customers by Whatsapp, instagram and facebook, to receive and save orders and to send and receive emails. 99% of all users agreed that ICT use after adoption has resulted to improvement in general revenue. Therefore SME performance was positively impacted due to ICT use after ICT adoption.

Based on five categories of businesses which were selected to conduct the study with 20 questionnaires each making the total of 100 respondents at Kariakoo market in Ilala Dar es salaam, the table below indicates the level of response from each business category on the impact of ICT usage after adoption by small and medium enterprises in Kariakoo.

Table 4. 14: Response % of ICT usage after adoption to impact revenue of businesses.

ICT usage after ICT adoption to revenue.	business specialization					Total
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	
	1	0	1	3	0	5
not sure	6	2	4	0	0	12
agree	13	18	15	15	19	80
strongly agree	0	0	0	2	1	3
	20	20	20	20	20	100

Source: Field data (2019)

The findings revealed that, majority of respondents (80%) agreed that ICT usage after adoption by SMEs has significant impact towards SMEs performance as measured by general revenue of business. From the majority ratio, 13% were general merchandise owners/managers, 18% were money transfer owners, 15% boutique managers, 15% were restaurant's managers and 19% were consultants.

By these results, it is clearly noted that ICT usage after ICT adoption has impact to the performance of small and medium enterprises.

Generally given the analysis of findings, the use of information and communication technologies impacted positively small and medium enterprises performance at Kariakoo market.

Jeffery and Belle (2011) supported these findings as they identified that SMEs which uses ICT certainly added value to the products of such SMEs.

Kemilembe (2017) is another scholar whose findings supports results whereby he believed that there is a link between ICT and SME performance and referred to hotels which uses ICT were performing better in services and expansion than those which didn't use ICT, he also revealed that computerized reservations process, management system and supplies techniques and the status of the hotel as important constructs in affecting performance of the hotel.

Musabila (2012) also agreed with the findings where he stated that private businesses which has adopted ICT especially basic ICT performed well than businesses which did not use ICT in their operations.

Also Nyangalika, (2016), established that networking via ICT use were adopted by SMEs in their usual operations and helped to increase productivity, accessing the markets, and profitability that included improved business functionality, raise in profit margins and allows SMEs to advertise their products and services. They also found that networking through ICT usage is important in SMEs to the extent that requires support in knowledge management to attain the business objectives.

The theory of Technology, Organization and Environment (TOE) supports the findings in the sense that interior technology is vital for the firm to adopt the exterior one and this distinguished the level of innovation between firms since some had resulted to significant changes and some into small changes Collins et al (1988).
Also the same theory suggests that high competition and production happens in the industry with firms which are performing better and invest in innovation to continue to perform better while in the same industry situation the firms which do not cope with ICT innovations are subject to wind up and closure Mansfield et al, (1977).

Apart from the main selected measure of performance i.e. general revenue of the business, this study interrogated respondents to obtain the performance results in in a nut shell for other minor categorized performance indicators of profit generated by SMEs before and after ICT adoption as well as whether the number of customers/customer base increased before or after ICT adoption by small and medium enterprises located at Kariakoo market in Ilala Dar es salaam.
The following tables show the findings of the selected minor performance indicators to support the results of the study on the impact of ICT towards performance of SMEs at Kariakoo Market.

Table 4. 15: responses % on increased profit and number of customers before ICT adoption.

More profits before ICT adoption	business specialization					Total
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	
disagree	19	18	19	17	19	92
not sure	0	0	0	0	1	1
agree	0	2	0	0	0	2
Total	19	20	19	17	20	95
Increased number of customers before ICT	business specialization					Total
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	
	1	0	1	3	0	5
strongly disagree	1	1	1	0	3	6
disagree	18	19	18	17	17	89
Total	20	20	20	20	20	100

Source: Field data (2019)

The schedules above indicates that majority of respondents (92%) from five selected business segments at Kariakoo market disagreed on the fact that More profits were generated by small and medium enterprises before ICT adoption, amongst them 19% were from general merchandise, 18% from money transfer businesses, 19% responded by boutique participants while 17% were from restaurants owners and the rest 19% originated from consulting businesses.

In view of the above it is clear that before ICT adoption there were no impact on performance of small and medium enterprises.

Nevertheless, 89% of the same respondents also disagreed on the argument that number of customers increased (performance measure) before ICT adoption by small and medium enterprises. The response percent was contributed by 18% general

merchandise, 19% money transfer businesses, 18% boutique respondents and 17% from each of restaurant and consultation respondents.
For the other time the results revealed that small and medium enterprises performance were not impacted before they adopted information and communication technologies.\

These findings was supported by the theory of technology and acceptance model (TOE) which clearly stated that without firms which adopted ICTs grew and performed in terms of profits and customer base compared to businesses which did not adopt ICTs in their operations.

Nyangalika, (2016), also suggested that networking via ICTs adopted by SMEs in their usual operations has helped to increase productivity, markets (number of customers), and profitability that included improved business functionality, raise in profit margins and allows SMEs to advertise their products and services easily and less costly.

Table 4. 16: responses % on increased profit and number of customers after ICT adoption.

Profit increased after ICT adoption	business specialization					Total
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	
	1	0	1	3	0	5
not sure	0	1	0	0	0	1
agree	15	19	17	17	19	87
strongly agree	4	0	2	0	1	7
Total	20	20	20	20	20	100
Number of customers increased after ICT adoption	business specialization					Total
	General merchandise	Money transfer	Boutique	Restaurants	Consultation	
not sure	3	1	2	2	0	8
agree	16	19	16	14	18	83
strongly agree	0	0	1	1	2	4
	19	20	19	17	20	95

Source: Field data (2019)

87% of the total respondents agreed that profits increased after ICT adoption by small and medium enterprises. Therefore as a measure of SME performance (profit) were impacted by ICT adoption by such businesses located at Kariakoo market. The agreed ratio was made up of 15% general merchandise, 19% money transfer, 17% restaurants, 17% boutique and 19% consultation.

From the findings it is obvious that ICT adoption has significant impact to small and medium sized enterprises.

Apart from that 83% also agreed that SMEs which used ICT or adopted ICT has substantial impact to their performance as measured by number of customers where by customers increased after ICT adoption. General merchandise, money transfer,

boutique, restaurants and consultation businesses contributed to agreed ratio by 16%, 19%, 16%, 14% and 18% respectively.
Thus performance of SMEs at Kariakoo market has been positively impacted after ICT adoption.

Mpofu, K. & Gono, S. (2015) found out that businesses which deployed information and communication technologies in their normal operations appeared to have generated higher profits and therefore increased production and its customer base to multiply their earnings.

Selvam et al (2016), identified information and communication technologies as one among the determinants of SMEs performance whereby indicated that firms which uses ICTs earned more profits and through that their customer base expanded year after year. The increase in number of customers pushed the SMEs to increase their productivity and expands in size.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the last section of research which provides summary of the study findings, conclusion of the findings and recommendations of the study as per the objectives of the research. The chapter may also give policy implications, limitations of research and suggest areas for further research.

5.2 Summary

The purpose of research was to assess the impact of Information and Communication Technologies towards performance of Small and Medium Enterprises at Kariakoo Market in Ilala Dar es salaam. Specifically to find out whether the cost of information and communication technologies impact performance of small and medium enterprises at Kariakoo market, to assess whether there is awareness of information and communication technologies by small and medium enterprises to impact their performance at Kariakoo market and to identify whether the use of information and communication technologies impact small and medium enterprises performance at Kariakoo market. The demographic characteristics of respondents are also reported.

The questionnaire has been prepared in accordance to the research objectives of the study with the main tasks of identifying necessary ICT costs that impact performance of SMEs, establishing necessary aspects of ICT awareness and the way it impact the performance of SMEs and identifying the ICT equipment used by SMEs and their usage impact towards performance of SMEs.

Most of the respondents who replied to the questionnaire are men who were 79 equal to 79% while the remaining 29 equal to 29% are women, their ages are distributed as follows, 10% were aged below 25 years, 36% were aged from 25 to 35 years but 47% were aged from 36 to 45 years respondents with age from 46 to 55 years were 6% and only 1% was aged above 55 years. These data indicates that most responded age group was those of age from 36 to 45 years old with a percentage of 47%.

The big number of respondents has secondary education with presentation of 47%, followed with 23% holding degree, then 17% have diploma, 9% have standard seven education and lastly 4% who have master degree.

35%of businesses had been in operation for less than 5 years, 45% operated for 5 to 10 years, 18% had been in operation for 11 to 15 years whereas the rest 2% has been in operation for 16 to 20 years. Therefore it can be clearly said that most questioned respondents was those who has been in operation for 5 to 10 years with 45%.

The results presented on previous chapter contain the findings of both performance before ICT adoption and performance after ICT implementation. The major performance indicator selected was general revenue of the businesses.

As per analysis of findings, 77% of respondents consisting of 18% from general merchandise, 16% of money transfer, 17% from boutique, 9% from restaurants and 17% from consultation businesses, disagreed on whether cost of ICT before its adoption had impact on SMEs performance. On the other hand, 81% comprising of respondents from general merchandise (18%), money transfer (18%), boutique (17%), restaurants (14%) and consultations (14%) agreed that cost of ICT after its adoption had impact to SME performance.

Also 59% of total respondents disagreed on whether ICT awareness before ICT adoption had impact to SMEs performance. The majority percent was contributed by 9% of general merchandise, 13% of money transfer, 10% of boutique, 11% of restaurants and 16% of consultation but 63% of the same respondents agreed that ICT awareness after ICT adoption had impact towards performance of SMEs. Of them 9% was general merchandise, 16% was money transfer, 9% was boutique, 13% restaurants and 16% consultation business.

Before ICT adoption 74% of respondents disagreed if ICT usage had impact to SMEs performance. The majority was composed of 10% general merchandise, 18% money transfer, 11% boutique, 17% restaurants and 18% consultation. But also after ICT adoption 80% of total respondents with 13% from general merchandise, 18% money

transfer, 15% boutique 15% restaurants and 19% consultation firms agreed on the fact that ICT usage had impact on performance of SMEs.

Other minor measure of performance was profit increase and increase in number of customers. Both of them revealed similar results concerning SMEs performance as compared to before and after adoption. The same revealed that performance were impacted positively (by 87% and 83% respectively) after ICT adoption, but before adoption respondents disagreed on impact on performance of SMEs.

After ICT adoption most of the respondents used cellphone in their business operations which is 32% and 23% used cellphones and computer to operate their business, 15% used cellphone, printer and computer another 15% used cellphone and POS, 5% used selcom machines and 2% used computer, POS and cellphone. However five respondents did not reply to this question. The results reveal that the most used ICT device was the cellphone which was applied in almost every category either independently or together with other devices.

5.2.1 The impact of cost of ICT on performance of SMEs

The research study revealed that before ICT adoption, to a good extent the cost of information and communication technology did not impact the performance of small and medium enterprises at Kariakoo. By a mean score of 3.07 money spent to buy working materials before ICT were not economical, by mean score of 2.63 cost of ICT facilities were not beneficial than cost of ICT infrastructure, office running costs were not reasonable than ICT running cost by a mean score of 2.89, cost of training before ICT were not beneficial than cost of ICT training by mean score 2.37 and therefore general revenue was not better before ICT implementation by a mean score of 2.24.

ICT costs were not significant measures of SMEs performance however recurrent ICT costs and costs of hiring experts are significant. Hindrance to expansion currently is the new ideas adoption cost and therefore implementing new ideas needs resources and skills

However after ICT adoption to great extent respondents agreed that cost of information and communication technologies impact positively performance of small and medium

enterprises at Kariakoo market. By a mean score of 3.98 the money spent on buying ICT were economical and mean score of 3.95 the costs of ICT training are reasonable. On the other side revenues improved after ICT implementation at the mean score of 4.12, ICT daily running costs are favorable by mean Score of 4.02 and by the mean score of 4.01 the costs of ICT infrastructures are favorable to business. The same has been suggested by Massenge, (2014) who argued that, the costs of production are reduced by application of information and communication technology through decreasing, security costs, operational costs and communication charges. Another scholar (Bonn, 2001) as per literature review explained facts that the more sophisticated ICTs are used by SMEs the more costs of it are incurred although the returns on investments in ICT are proportional to the costs incurred.

5.2.2 Impact of ICT awareness on performance of SMEs

The research established that ICT awareness before ICT adoption did not impact positively the performance of SMEs majority of respondents disagreed and some strongly disagreed whether ICT awareness impacted SME performance. Big number of respondents shows that ICT training were not provided to staff before its adoption (i.e. 74%), another response from 69% indicates that ICT training which were not provided to staff did not help them to achieve their targets, also other 73% shows that ICT manuals did not help them to improve their work nevertheless 52% indicated that ICT professions were not available in business before ICT adoption. All these results did not impact the business performance positively since 59% of respondents agreed that general revenue of the business was not better before ICT implementation. This means small and medium enterprises at Kariakoo were not aware of ICT before its adoption.

These findings go contrary with the findings by Bruce, (2002) who stated that ICT awareness increases owner and manager's literacy level and so boosts creativity and production of goods as well as delivery of services. But the same agrees with the findings by Chumba, (2016) who argued that, competence on ICTs is not the significant factor that impact SME performance.

Also findings agrees with the contents of the institutional theory that forms do not make decisions only basing on rational efficiency objectives but also cultural values of the

society, since it was not the culture of the businesses or SMEs to provide training on ICT before its adoption therefore the ICT awareness was not obtained and no impact was noted on the SMEs performance Lin and Liu, (2015); Gichira et al., (2012).

However after ICT adoption ICT training was adequately provided to staff 68% respondents agreed on this, also 73% agreed and strongly agreed respectively that ICT training after adoption helped to meet SMEs targets, 51% agreed and strongly agreed that ICT manuals were provided for reference after every training to improve performance and finally 55% agreed and strongly agreed that ICT challenges are dealt with professions internally, through cross tabulation positive feedback from respondents concerning ICT awareness aspects 99% agreed and strongly agreed that general revenue of the business improved after ICT adoption, i.e. proper training were done to staff to bring awareness and thereby positive impact to SMEs performance. Then generally small and medium enterprises at Kariakoo market became aware of ICT after its adoption.

Supported by Nassiuma (2018) who said that large corporates are very aware of the ICT developments and so capitalizes on it by employing and training its man power so that to remain up to date and improve performance of their business.
Also Massenge, (2014) agreed with these findings whereby stated that for the SMEs to benefit from use and application of ICTs, managers and owners or top management of the SME should be fully aware of the ICT meaning, usage, current developments, costs as well as its associated benefits.

5.2.3 Impact of ICT usage towards SMEs Performance

SMEs service delivery were not good before ICT adoption as disagreed by 79% of respondents, HR, accounting, procurement and sales were not easy before ICT adoption as replied by 68% of respondents, 66% disagreed that activities were completed on time before ICT application, meaning that there were some delays in absence of ICT and 59% disagreed on the accuracy of business records before ICT adoption. In all aspects the general revenue of businesses were not improved as indicated by 74% of respondents who disagreed on revenue performance improvement in absence of ICT.

This tells that large number of respondents disagreed on the usage aspects of ICT before its adoption and therefore resulted to no positive impact on general revenue as an indicator of SME performance.
It is supported by the study made by McKinsey Global Institute, (2001) which said ICT are normally vital however not sufficient to enable gains of production but can improve essential SMEs businesses.

Although after ICT adoption the SME performance in terms of general revenue has been positively impacted by the use of ICT, different equipment was used, some in isolation and others in combination as indicated above. 80% of participants who filled the questionnaires agreed that after ICT adoption general revenue of the business improved. But the positive impact was due to favorable responses on the aspects of ICT usage whereby, 87% respondents agreed and strongly agreed that HR, accounting, procurement, and sales were made simple by using ICT equipment, another 81% agreed and strongly agreed that business records were more accurate when using ICT and 85% of respondents also agreed and strongly agreed on the fact that the use of ICT has enabled on time fulfillment of activities and duties.

Then the use of information and communication technologies impacted positively small and medium enterprises performance at Kariakoo market after ICT adoption.
Jeffery and Belle (2011) supported these findings as they identified that SMEs which uses ICT certainly added value to the products of such SMEs.
Kemilembe (2017) also supported by saying there is a link between ICT and SME performance and referred to hotels which uses ICT were performing better in services and expansion than those which didn't use ICT.

Musabila (2012) agreed with the findings where he stated that private businesses which has adopted ICT especially basic ICT performed well than businesses which did not use ICT in their operations. Nyangalika, (2016), established that networking via ICT use were adopted by SMEs in their usual operations and helped to increase productivity, accessing the markets, and profitability that included improved business

functionality, raise in profit margins and allows SMEs to advertise their products and services.

5.3 Conclusions

Based on the findings, the study can draw the conclusion on the impact of information and communication technology towards small and medium enterprises performance in Kariakoo market Ilala municipal.

The findings revealed that there are positive impact in performance of SMEs which has adopted and consistently used ICTs in their operations, human resource management, accounting and financial management, inventory management, customer relationships, invoicing and billing, back up and archiving as well as collaboration and communication. The performance has increased in the following aspects, general revenue of SMEs improved same line as profitability and capital base, market share also increased, services were delivered well by staff, simplified the activities of HR, accounts, sales and procurement, it enhanced accurate business records, enabled on time fulfillment of activities. Through bringing awareness to staff and management ICT has helped staff to gain ICT knowledge and stay up to date through ICT trainings, provision of ICT manuals to enhance references of ICT seminars, after adoption of ICT most ICT experts were hired and so brings training and awareness to other staff via on job training, ICT has also reduced costs of productions and operations in SMEs however initial costs seems significant but reasonable considering future benefits of the same. To great extent findings also reveals that ICT has helped to active competition of the SMEs using it.

As per the study findings, many SMEs at Kariakoo market has invested abundantly in cellphones as their ICT major tool to support the business operations, they used it for direct calls to both suppliers and customers, they also use it (especially smart phones) to post new products so that to create awareness to customers by Whatsapp, instagram and facebook, to receive and save orders, to send and receive emails and so on.

This study concludes that information and communication technologies impacted small and medium enterprises in Kariakoo market to large extent through the use of Mobile phones massively and somehow through usage of POS and computers and other devices like printers, selcom machines, EFDs, printers etc, general revenue of the business has improved in all aspects after ICT has been adopted.

However the conclusion is vice versa for the SMEs performance before ICT was adopted.

5.4 Recommendations

Since the cost of ICT has been one of the vital elements that impact performance of SMEs then SMEs need to rationalize ICT costs, cost benefit analysis as well as future cash forecast should be applied to determine whether to buy ICT equipment or not, rational judgment should be practiced before taking decisions. In this sense SMEs will improve its performance by employing affordable ICT facilities considering the industry in which it operates. The cost of ICT personnel also was revealed to be significant however we recommend SMEs to choose in house training and using local experts to impart ICT knowledge to its staff for future enhanced performance as well as reducing ICT expert costs and narrowly if the need arise outsource ICT experts who are more costly than local ones.

It has been noted that many SMEs uses cellphones and slightly other ICT devices however SMEs can collaborate and share costs of some ICT equipment like, internet connections, storages, disaster recovery sites, innovative solutions like cloud computing and platforms which can be used collaboratively and so reduce its expenses.

Also the government of Tanzania can support these SMEs by reducing tax to all ICT hardware, software and facilities which are bought specifically to improve performance of SMEs so as to encourage ICT use which will then yield to more revenue and profits from which the first reduced taxes can be collected.

Furthermore ICT usage and awareness cannot be easily separated. For SMEs to improve their performance in future then they should either higher highly ICT skilled personnel or invest in training committed people in ICT professions so that to always

stay up to date and competitive with high innovative ICT solutions and leadership which will certainly improve SMEs performance going forward.

I also recommend that Small Industries and Development Organization (SIDO) of Tanzania should take initiative to educate the entrepreneurs especially MSMEs the importance and impact of ICT to their businesses as well as the way it can boost their sales and general performance, it should initiate some platforms at which SME practitioners will share experiences and other junior will learn from the same for further development. This way may help the SME owners and managers conquer their fear towards ICT adoption and attract them to join the world of technology which will eventually boost their business performance.

5.5 Policy implications

The findings of this study implies that there is high possibility of performing well in SMEs if the owners and managers decide to adopt and apply ICT consistently in their business operations, customer management, communication and collaborations, HR, accounts, procurement and sales as well as other business activities the SME can afford to apply technology. Practically ICT simplifies complex activities of accounting and procurement, makes easy communication and collaboration between management and staff, provide security for frauds and forgeries and so many other activities. Therefore it is with high possibility that SMEs will perform better when uses ICT in its business operations, administration and distribution than when choose to ignore ICT.

5.6 Limitations of the research

The research study has been performed on the impact of ICTs towards SMEs performance in Kariakoo market Ilala municipal, and it revealed that majority of the businesses which used ICT their performance was positively impacted. However it should be clearly noted that not all poor performing SMEs was caused by nonuse of ICT because ICT is one small factor among many factors which affect the performance of SMEs. Some of the factors can be, general economic downturn, countries tax practices, currency instability and so many others. Therefore this is an in-depth study of ICT as a very tin aspect of SME performance which has been analyzed and

presented. Another limitation is that, sample selected in this research was based on convenience sampling, therefore it may contain some elements of biasness however the researcher tried hard to be unbiased. On the other hand SMEs selected and tested may be found from different sectors of which some can be affected with ICT significantly and others slightly however this study has run data for all respondents regardless of which sector they belong.

Other scholars can still research on the SMEs performance on the other places and other business sectors because this is a very tiny study in small area of Kariakoo market and researched only at ICT but others can research on other factors at the same locality as well as on the same factor to other localities.

Even though there are some limitations, this study had been significant especially to scholars who use this as their reference when researching for similar studies, entrepreneurs and business managers may benefit to use this research in making decisions regarding ICT as related to SMEs performance. The same research helped business policy makers to develop policies which favored good business performance through encouraging use of ICT.

5.7 Suggestions for further research

1. Studies of the same nature can be conducted on other localities.
2. But also on the same setting the others can carry on the research for impact of website use or telephone use as a component of ICT towards performance of SMEs,
3. Also the use of EFDs towards business development can also be researched.
4. Assess the financial benefit of adopting ICTs in SMEs.

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APPENDICES

Questionnaire

Kindly assist to provide answers to below questions, the answers will be kept with high confidentiality and will be used purposely for this research and nothing else.

Your phone number _____, your email_____

Background Information; Tick the correct information.

1. Your age is; below 25: ( ) 25-35 yrs: ( ) 36-45 yrs: ( ) 46-55 yrs: ( ) above 55 yrs: ( )
2. Your gender female: ( ) Male: ( )
3. Highest level of education you have attained.

Standard seven: ( ) Secondary: ( ) Diploma: ( ) Degree: ( ) Masters: ( ) Doctorate: ( )

4. The business operates under ( ) TIN number ( ) Business license ( ) special permit ( ) other ____
5. Number of employees hired in your business

Less than 5 ( ) 5 – 49 ( ) 50 – 200 ( ) Above 200 ( )

6. The business has been in operation for _____years.

Less than 5 yrs ( ), 5-10 yrs ( ) 11 -15 yrs ( ) 16-20yrs ( ) above 20 yrs

7. Your business specializes in;

General merchandise ( ), Money transfers ( ), Boutique ( ), Restaurants ( ) Consultation

Specify if not in the list……..

ICT usage in SMEs

1. Tick as you agree/disagree; 1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree.

	1	2	3	4	5
ICT equipment are used in your business					
Your company uses software for operations and management of information					

2. If agreed or strongly agreed mention any 3 ICT equipment used in your business.

i)…….ii) ……iii) …….

3. If agreed/strongly agreed, tick the appropriate software below and comment its uses;

- Human resource management ( ) comment _____
- Accounting and financial management ( ) comment _____
- Supply chain or Inventory management ( ) Comment_____
- Content, document and data management ( ) Comment _____
- Customer relationship management ( ) Comments _____
- Business operations, budgeting and decision making ( ) Comments_____
- E-commerce ( ) Comments _____
- Point of sale, invoicing, billing ( ) Comments _____
- Backup and Archiving management ( ) _____
- Collaboration and communication i.e. Email, Forums, WhatsApp, Instagram ( ) _____

- Surveillance and security e.g. CCTVs, Firewalls, Antivirus ( )
  Comments_____

Other ( ) Comments

_____

4. The internet access is available at your business ( ) Strongly disagree ( ) Disagree ( ) Not sure ( ) Agree ( ) Strongly agree.

5. If agreedwhat type of connection; LAN ( ), WAN ( ) Cable connection ( )Wireless ( ) Modem ( )

Mention (if not stated above) _____

6. Our company possess a website( )strongly disagree( )Disagree( )not sure ( ) agree ( ) strongly agree.

7. If agreed/strongly agreed, tick on the kinds of platform

A poster or brochure type designed to display information to others. e.g customers	
A site with demonstrations of knowledge or skills.	
An e-commerce site for the selling of goods or products.	
A site providing resources for information and professional practice.	
A broad site with combination of any of the above sites	

The Impact of Use of ICTs on Performance of SMEs

1. Tick the numbers 1-5 to show your level of agreement with the following statements. 1- Strongly disagree, 2 – disagree, 3 – not sure, 4- agree, 5-strongly agree.

Performance of SMEs before ICT adoption	1	2	3	4	5
Number of customers were many before ICT deployment					
Business got more profit before adopting ICT					
I delivered my services well before ICT adoption					
Activities of accounting/human resources/procurement or marketing and sales were simple before ICT adoption.					
My record were more accurate before applying ICT.					
I completed my activities on time without ICT than after adoption					

Use of ICTs on Performance of SMES	1	2	3	4	5
ICTs has helped to get more customers than before adoption					
Profits increased after you started to use ICT facilities.					
The use of ICTs has helped to deliver my services well.					
ICT adoption has simplified accounting/human resource/procurement or marketing and sales activities of the business.					
The Use of ICTs helps in ensuring accuracy of my records					
ICT has enabled fulfillment of activities on time					
ICTs are not reliable in the business hence need of recourse to non ICT-supported process frequently.					

Awareness levels of information and communication technologies on performance of small and medium enterprises.

2. Tick according to your level of agreement with the following statements on the impact of awareness level on ICTs on the performance of SMES 1 – Strongly disagree, 2 – disagree, 3 – not sure, 4- agree, 5-strongly agree.

Impact of awareness level before ICT on performance of SMEs.	1	2	3	4	5
ICT training were provided to staff before ICT adoption					
Training on ICT helped to meet targets on time even though ICT were not adopted.					
ICT materials provided before its adoption helped to improve the work.					
The working environments without ICT were friendly and pleasant.					
ICT professionals were available even before its adoption.					
ICT experts available before deployment were from outside.					

The Impact of Awareness Level on ICT on performance of SMEs	1	2	3	4	5
ICT training has been adequately provided to staff after adoption.					
Proper training on ICTs enabled to meet targets on time					
Necessary ICT manuals are provided for reference after every training for effective use.					
The ICTs we use are user-friendly and easy to learn					
Any challenges emerging when using ICT are dealt with professionally to allow continuity of service delivery.					
Any challenge encountered while using our ICTs are dealt with internally.					
ICT challenges are dealt with experts from outside.					

The Impact of Cost of ICTs on Performance of SMEs.

1. Tick based on your agreement level, the following statements on the impact of cost of ICTs on the performance of SMEs. 1- Strongly disagree, 2 – disagree, 3 – not sure, 4- agree, 5-strongly agree.

The impact of costs before ICTs in performance of SMEs					
The money spent on buying working materials before ICT adoption were economical.					
The cost of working facilities before ICT were beneficial than the cost of ICT infrastructure after adoption.					
Working facility costs before ICT deployment were more reasonable than ICT maintenance cost.					
Daily costs to run the office before ICT adoption were reasonable compared to ICT running costs.					
More profits were generated before ICT application compared to after adoption.					
Costs incurred for training before ICT were beneficial than the costs of ICT training.					

The Impact of cost of ICTs in Performance of SMEs	1	2	3	4	5
The money we spent on buying the ICTs are economical to business					
The cost of infrastructure for the ICTs depends on the purpose of the ICT, but we can always look for favorable deal in the market for ICT infrastructure, hardware and accessories.					
ICTs maintenance costs are quite significant but the profits are way ahead or more.					
The daily costs to insure ICTs are running every day are favorable					
Normally, the profits obtained from the ICTs are outweighed with its costs					
The cost of training staff in ICTs are reasonable					

Business Performance Information

2. Tick as per your agreement degree on the following business performance statements.

1- Strongly disagree, 2 – disagree, 3 – not sure, 4- agree, 5-strongly agree.

Performance indicators	1	2	3	4	5
General revenues of the business was better before ICT implementation					
Profits were super without ICT application					
The percentage change of market share was big before ICT adoption					
The business were more competitive before ICT deployment.					
The capital base expanded in absence of ICT					

Performance indicators	1	2	3	4	5
General revenues of the business improved after ICT adoption					
Adoption of ICTs resulted to an increase in profits.					
The percentage change in market share of the company has improved after adopting ICTs					
Ability to compete increased after ICT adoption.					
The capital base expanded as a result of ICT application					

3. This is the likely % change of profit/loss in the business. ( ) 5%-15% ( ) 16%-25% ( ) Above 25%.

Thank you for your time and participation, we appreciate that.